

Sustainability Report 2008-2009



Towards Green Agenda





EVEN A

SMALLEST DROP.

MAKES A DIFFERENCE

At Indah Water, our sewerage services to Malaysians help preserve our natural water resources, the environment and public health

Target Audience

Our target audience include all stakeholders, but not limited to government leaders, regulators, employees, business partners, consultants, contractors, suppliers, academicians, non-governmental organisations, environmental groups, community leaders, individuals with interest in the sewerage and water sectors and the communities in which we operate.

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OBJECTIVES

In the year 2009, Indah Water Konsortium Sdn. Bhd. (Indah Water or the company) published its inaugural Corporate Sustainability Report, 2007 which highlights our '13 years of environmental accomplishments' and social achievements as part of our initiative towards greater transparency to our stakeholders. Again, this year, as part of our continuous improvement, we continue our efforts in transparency and disclosure of our corporate responsibility performance via standard information sharing.

This report outlines Indah Water's core values and policy, our workforce and stakeholder's engagement, and our sustainability and corporate social responsibility (CSR) efforts and performance for the years 2008 to 2009. Apart from these, we have also incorporated our risks and challenges in managing public sewerage facilities, our health and safety policy and practices and finally, our way forward in mapping our future direction.

Indah Water at a Glance



- Established in 1994 as a privatised national sewerage company.
- The company has been wholly-owned by the Minister of Finance Incorporated since 2001.
- Provide sewerage services to 86 Local Authorities within Peninsular Malaysia and Labuan except for the State of Kelantan, Johor Bahru and Pasir Gudang Municipal Areas, Ketengah and Kejora Local Authority Areas.
- Our headquarters is located at Pusat Bandar Damansara, Kuala Lumpur.
- We have 18 unit offices, 51 reporting centres and 3 regional laboratories nationwide.

Vision and Mission

Our Vision

“To Be The Most Efficient & Environmental Caring Sewerage Company”

Our Mission

“We Are Highly Committed to Provide Efficient Sewerage Services to All Customers Besides Striving Towards Developing The National Sewerage System That Will Collectively Contribute Towards A Sustainable & Friendly Environment”.

Indah Water's Services

Operation & Maintenance of Public Sewerage Systems



Provide regular and scheduled operation and maintenance of 13,772 km of public sewers, 736 pumping stations and 5,428 public sewage treatment plants within service areas. Provide corrective and preventive maintenance of public sewers, network pump stations, sewage and sludge treatment facilities to meet the regulatory requirements.

Septic Tanks Desludging Services



Scheduled desludging services for government offices' communal septic tanks and responsive desludging of communal and individual septic tanks.

Monitoring of Effluent Quality and Sludge Disposal Activities



Sampling, analysis, and monitoring of effluent quality and sludge disposal activities. Effluent compliance data submitted to DOE and SPAN.

Sewerage Capital Works and Refurbishment Management



Sewerage project management, monitoring on compliance of capital works and refurbishment of national and regional sewerage projects.

Sewerage Technical and Operational Skills Training



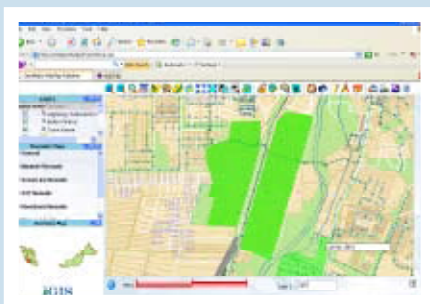
Professional technical and non-technical training on sewerage planning strategy / master plan, engineering, environmental monitoring and analysis, operational, preventive maintenance, health and safety in sewerage systems, etc. Local and international training on sewerage management and operation /maintenance.

Research and Development (R&D) Works in Sewerage Sector



In-house R&D works and Continuous Improvement Projects, External Vendor Led R&D, Structured Institutional/Universities R&D, and Academia's Student Research Initiatives.

Sewerage Planning, Sewerage Asset Data Monitoring and Certifying Services



- Planning Services: development and up keep of nationwide sewerage catchment strategy, sludge management strategy, sewerage project planning, sewerage asset database, GIS system and mapping, etc.
- Certification Services: evaluating, certifying and approving of sewerage facilities application on behalf of the Commission (SPAN).

Sewerage Technical and Environmental Services / Consultancy Works



- International consultancy on sewerage management, policy, public awareness, etc.
- Conduct audit of sewerage system/company's (international projects, Indonesia, Middle East, etc)
- HAZOP studies for water and wastewater industries

Chairman's Statement



“As an environmental caring company, **Indah Water** strongly supports the government's initiatives on holistic sewerage management approaches to upgrade sanitation in the country. We welcome and fully support the government's commitment towards the **'Green'** agenda.”

Y. Bhg. Dato' Ibrahim Mahaludin Puteh
Chairman
Indah Water Konsortium Sdn Bhd



I am pleased to present, on behalf of the Board of Directors, the second corporate sustainability report from Indah Water Konsortium Sdn. Bhd. for the years 2008 and 2009. The report highlights our commitment in sewerage management, social development and environmental protection towards sustainable living. The report also present details of our performance in these areas.

Last year's report was our first attempt in documenting and publishing our 13 years of accomplishment in the sewerage sector. In it, we attempted to detail out the sewerage evolution and development in the country over this period. We have followed the GRI framework and included GRI-G3 index listing at the back of the report. We are proud that even though we were a first timer in sustainability reporting, our report was short-listed for the ACCA Malaysia Sustainability Reporting Awards (MaSRA) 2009.

This year, we have slightly changed the report format and further improved the content by incorporating more areas listed in the GRI-G3 index listing. The report maps out our accomplishments in 2008 and 2009 by giving the overall view of our company and our services at a glance, followed by our company's core values and environmental policy framework. We are continuously working towards transparency in business practices and reporting by highlighting our workforce and stakeholder's engagement, our sustainability and corporate social responsibility (CSR) efforts and performances, our risk and challenges, health and safety commitment in our day-to-day operations, achievements and awards that we have received and finally, the way forward to map our future direction. We are still in a learning process and this report is prepared internally by our own staff. We know it is our responsibility to maintain the transparency agenda of the company and ensure that all of our stakeholders are well informed on our business direction, goals, performances, achievements and challenges.

As an environmental caring company, Indah Water strongly supports the government's initiatives on holistic sewerage management approaches to upgrade sanitation in the country. Indah Water is proud that we are able to carry out the entrusted responsibility of protecting the environment and upholding public health.

We welcome and fully support the government's commitment towards the 'Green' agenda. We have spent millions on research and development (R&D) initiatives and most of it are towards green technology and application of our bio by-products. Going forward, we will endeavour to make use of the successful R&D works and work together with interested parties towards workable green-tech applications.

On behalf of the Board of Directors, I would like to record my appreciation for the engagement, support and involvement of our stakeholders in our business processes over the years.

Finally, I wish to thank all Indah Water's directors and staff for their commitment, support and hard work in realising the company's vision and mission.

Dato' Ibrahim Mahaludin Puteh
Chairman

“*Indah Water will continue focusing on operational efficiency and look forward to the business opportunities.*”



***Ir. Abdul Kadir Mohd Din
Chief Executive Officer
Indah Water Konsortium Sdn Bhd***

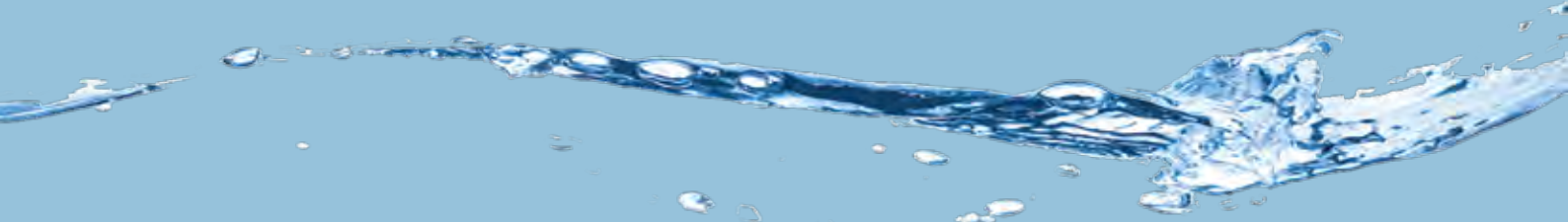
CEO's Statement

In the last 2 years, we saw significant improvements in the delivery of sewerage services to our valued customers. I am proud to say that these accomplishments were the direct result of the commitment and dedication of our staff. Their passion is truly inspiring and I am continuously moved by their steadfast desire to provide efficient sewerage services all these years. I shall make certain the continuation of such commitment and dedication on our part for many more years to come.

Despite the constraints, we have continuously made relentless efforts to enhance and improve the sewerage services, customer awareness and educational programs. Customers, conversely, have been reciprocating positively by paying their sewerage bills promptly. For that, I would like to express my heartfelt appreciation to all our environmental caring and loyal customers. To date, over 80% of the sewerage bills has been fully settled. I hope the remaining 20% unpaid bills will be settled by our customers, to whom we continue to provide service every day.

In Indah Water, we believe that in the final analysis, efficient service will only be meaningful, if it brings value to our customers. The policy direction is not only to work towards providing cost effective and efficient services but more importantly to improve the quality of life by preserving the environment, protecting public health and the water resources. To achieve this, one of Indah Water's main areas of focus is to operate and maintain the sewerage systems at the optimum level despite the financial constraints due to low sewerage tariff levels and escalating operating costs.

This is a big challenge and I intend to fully address it as I prepare to lead Indah Water to greater heights and sustainable development. I may not have all the answers now, but I am confident, collectively as a team, we will find the appropriate solutions that will improve our performance and hence retain customer's loyalty. As we embark on year 2010, I am set to pursue various potential and opportunities to steer the company towards long term sustainability in this increasingly challenging economic environment. These are difficult times but I choose to call it challenging times. For when we are challenged, only then are we compelled to re-assess and build afresh. It is a good time for us to evaluate our strengths, weaknesses, opportunities and threats. As the saying goes, 'When the going gets tough, the tough must get going'.



An area close to my heart is business development within sewerage services. It is my vision to move Indah Water towards achieving higher value added economic activities so as to be self sustaining in the long term and be less dependent on Government financial support. We are pursuing with this the relevant authorities to enable us to venture into new businesses related to the Green Technology in the 3R of reuse of sludge, recycle effluent and reduce energy. Sewage treatment produces 3 key by-products i.e. treated effluent, sewage sludge and methane (biogas). It is our vision to repackage these products to a valuable resource in our effort to support the National Green Technology Policy.

Having achieved steady growth and progress over the last 15 years, Indah Water is determined to take the environmental challenges. As an industry leader, we have to gear ourselves for success today as well as tomorrow, and to think as well as act not just for the short term but also for long term sustainability. We are committed to continue implementing in-depth reforms to improve the existing business operations. In this sense, Indah Water will continue focusing on operational efficiency and look forward to the potential business opportunities as a new source of revenue stream to finance the escalating costs of treating sludge, operating and maintaining 13,772 kilometres of public sewer networks, over 5,428 public sewage treatment plants as well as over 200 new plants yearly. I look forward for our customers to see a cleaner environment and be charged based on an affordable tariff structure.

To carry out sewerage activities efficiently, it is vitally important to have public cooperation and understanding. Public interest in the sewerage system tends to be forgotten after the entire system is completed and disseminated. Thus, public relations and customer awareness activities are essential in order to carry out the appropriate operations and maintenance work, including ongoing works and new projects. Indah Water has strategically implemented public relations, customer awareness and corporate social responsibility programmes since the beginning of our establishment to enhance public understanding of the importance of sewerage treatment and sewerage services. Although we have seen outstanding improvement on public's knowledge of our business activities and services, we will strive and continuously improve our CSR's activities and public awareness campaigns until we receive full payment of our services rendered and full support from the public on environmental protection and sustainable living.

We have made significant strides in 2009 and we have conducted brainstorming sessions on the Company Business Sustainability on 4th to 5th December 2009 at the Flamingo Hotel. All head of departments and central regional managers had participated in giving ideas on issues, challenges, strategy, business focus areas and actions plan for the

upcoming years. We also conducted employee job satisfaction surveys on the current management practices in order to seek stakeholders' opinion and engagement towards the company's improvement and directly encourage stakeholders' involvement towards transparency and sustainable business practices.

Going forward, more long term mechanisms will be put in place to ensure long term sustenance of existing and potential businesses, especially embracing a global outlook to seek growth business opportunities. In reality, we have to make the best use of our 15 years' experience and expertise to achieve our goals. We have set ourselves an ambitious agenda and need all parties to work together as well as support our initiatives.

Even as we progress, we will keep our focus on doing what is right. We will continue to provide more cost effective and efficient services as well as more convenience for all customers. We will continue to educate more people in our communities towards a cleaner and healthier environment through our ongoing communications programmes and activities. And through it all, we will continue to focus on you, our customer, first.

On behalf of the Board of Directors, I would like to record our gratitude and appreciation to the Sewerage Services Department (SSD) and National Water Services Commission (SPAN) for stewardship of the company and national sewerage development.

I would like to thank all employees for their continued loyalty and dedication to the Company. Working together, I am sure we can look forward to an even more productive year ahead. In the future, I believe capacity building is crucial, to bring out positive values from each staff to increase their productivity and performance quality. As such, I have launched ESQ 165 training to 228 Indah Water's staff in November 2009. This training seeks a balance between emotional and intelligence quotient with spiritual quotient and promotes positive attitudes, self awareness and monitoring of individual performance capability.

Finally, I wish to extend our sincere appreciation to our regulators, business associates, business partners, clients and government authorities for their strong support throughout the years.

Ir. Abdul Kadir Mohd Din
Chief Executive Director

Core Values

Our core values are based upon the name **'INDAH WATER'** which stands for the following 10 values. **'INDAH'** is a Malay word for beautiful, whilst **'WATER'** as our core business to 'beautify' wastewater which means to add value and improve water quality by reducing pollutants to meet regulatory standards and improve public health and environmental concerns.

Integrity

Uphold professional responsibilities and accountabilities in the trustworthy manner.

Nurture

Provide diverse training programmes and hand on training facilities for workforce and the overall sewerage industries.

Dedication

Committed at all times to deliver quality sewerage services and output.

Astute

Apply knowledge, practical experience, holistic overview and effective decision making to ensure sustainable sewerage development and environmental protection

Holistic

Holistic approach and management of sewerage development and environmental protection.

Wisdom

Provide timely and appropriate recommendation and problem solving actions/output.

Authentic

Ethical and devoted to enlighten the stakeholders on sewerage services activities for safety, health and environmental protection.

Teamwork

A corporate effort of many expertise and support with one mind.

Endeavour

Act with available means and resources to upkeep sustainable sewerage development and environmental awareness to all stakeholders.

Resourceful

Systematic planning, development, implementation and monitoring to ensure stakeholders satisfaction.

Policy Framework and Management System

***Our environmental policy statement centres around the
“Business” we manage, i.e. “Sewerage”.***

Sustainable Service

Indah Water is totally committed towards providing total sewerage services sustainable in terms of social, environment and economic balances;

Environmental Friendly

Indah Water provides services, which are consistently carried out in an acceptable and environmental friendly manner;

Waste Management

Indah Water ensures all waste generated is managed in accordance with the regulatory requirements;

Engineering and Operational Excellence

Indah Water practices good engineering and operational procedures to meet environmental goals;

Research and Development

Indah Water undertakes research and development and also promotes transfer of environmentally sound technology and management methods throughout the sewerage services industry;

Adopt Triple R - Reduce, Recycle and Reuse

Indah Water adopts waste management principles by formulating and enforcing strategies that includes reduce, recycle and reuse treated water and sludge;

Good Liaison With Authorities and Customer Friendly

Indah Water continuously cooperates and works closely with authorities and enforcement agencies to provide support towards improving the environment in its quest to deliver customer friendly sewerage services;

Engage in Community Education and Awareness

Indah Water works closely with the community to disseminate environmental education and instil awareness and understanding on the importance of good sewerage service for the environment.

Corporate Governance

“Fifteen years of experience in sewerage management has enabled Indah Water to enhance the Malaysian sanitation system to become one of the best in the Asian region. Indah Water will endeavour to make our sewerage system more efficient and sustainable, by holistically planning and monitoring the sewerage system using green technology for a sustainable future”.

Y. Bhg. Dato’ Ibrahim Mahaludin Puteh
Chairman - Indah Water Konsortium Sdn Bhd



The role of the Chairman, the Board of Directors and the Chief Executive Officer is interdependent. The Board of Directors is led by the Chairman, Dato’ Ibrahim Mahaludin Puteh whilst the Chief Executive Officer is Ir. Abdul Kadir Mohd Din. The Directors have varied business and professional backgrounds making up a good mix and bringing a wealth of experience to ensure balance and sound business policies, decisions and directions. Regular meetings are held to discuss operations, business strategies and management issues for the long term interest of the shareholders, stakeholders, employees and the public.

Dato’ Ibrahim Mahaludin Puteh is the new Chairman succeeding Pn. Hajah Hanifah Hassan, who retired after a distinguished service on August 31, 2009. Dato’ Ibrahim holds a Bachelor of Arts (Honours) Degree from Universiti Malaya and Master of Business Administration from the Manchester Business School, University of Manchester, United Kingdom. Dato’ Ibrahim also has vast experience in the public sector. He joined the Ministry of Finance in 1974 as an Administrative and Diplomatic Service Officer and has served in various divisions in the ministry. In 2003 and 2004, he served as Senior Advisor to the Executive Director for South East Asia at the World Bank group in Washington DC, United States. From April 2007 to October 2008, he served as Deputy Secretary General (Policy) of the Treasury in the Ministry of Finance.

Ir. Abdul Kadir Mohd Din was appointed as the new CEO for Indah Water replacing En. Suhaimi Kamaralzaman from the Ministry of Finance (MOF) effective 1st December 2009. Indah Water has gone through significant operational efficiency, revenue growth, enhanced public knowledge and awareness of sewerage services and multiple achievements

through ten years of leadership under En Suhaimi and hope to achieve more in the future.

Ir. Abdul Kadir was previously the Chief Operating Officer for Pengurusan Aset Air Berhad (PAAB). He has 25 years of experience in water and wastewater sector and had served as a Senior Manager at Indah Water from 1995 to 2000. He holds a Diploma in Civil Engineering from UiTM, Shah Alam and graduated with Bachelor of Science (Hons) degree in Civil Engineering from Strathclyde, Glasgow, Scotland.

Sustainability On Board

Sustainability has always been an integral part of the Board’s interest and decision making. The Board constantly examines proposed business plans, sewerage strategies, project implementation, operational activities and performance monitoring of overall Indah Water’s works progress. The Board also established an Internal Audit Department (IAD) as early as year 1998 and since then, the IAD has been able to assess the established departmental procedures and performance monitoring, and promoted departmental transparency. The Board reviewed reports from Internal Audit Department to ensure compliance with the established procedure and promote continuous improvement within the company. The Board has also established Indah Water key performance indicators since year 2005 for clear sustainable business, departmental and workforce target and performance monitoring. The management also has approved the publication of Indah Water’s first sustainability report in 2007 and the following years, to create further stakeholder engagement to promote transparency and a sustainability culture within the company and related stakeholders.

Integrity Plan and Transparency

Indah Water recognises that maintaining the trust and confidence of shareholders, employees, customers and other people with whom we interact and do business, as well as communities in which we work, is crucial to the Company's continuous growth and success. We have published our own handbook on Code of Conduct for Employees to ensure that all terms and conditions of service are adhered to at all times. The overall objective is to be in line with the National Integrity Plan (NIP) and fulfil the challenges of Vision 2020 namely to "establish a fully moral and ethical society whose citizens are strong in religions and spiritual values and imbued with the highest ethical standards". The employees are also well briefed with details of the said Code of Conduct at road shows. Apart from that, the Code is also included in our induction programme for new employees.

In order to achieve its objectives and also to be in line with the National Integrity Plan, Indah Water has implemented various initiatives to govern our own Integrity Plan as follows:

- Implementation of Tender Manual and Tender Process Document in year 2000
- Establishment of Quotation and Tender Committee in 2001
- Launching of Conflict of Interest exercise covering all staff requiring declaration of any directorship/ shareholding in any company(ies) in 2002
- Assets declaration exercise in 2003
- Implementation of Financial Authority Limit and Management Committee approval process encompassing financial and non-financial transactions for all level of staff
- Holding regular Management meetings to track Departmental achievement of KPIs
- Holding regular Board Meetings to ensure Board Members are kept abreast of ongoing activities in Indah Water
- The Management had engaged a consultant company to conduct annual surveys and evaluation on staff understanding of corporate mission/ vision and perception on management, structure, job satisfaction etc in 2007 and 2008
- Establishment of Online e-Procurement for suppliers and contractors in 2008
- The Management has conducted staff satisfaction survey to evaluate their expectations and proposed recommendations (if any) of current management in 2009.



From Left

- Y.Bhg.Dato' Ahmad Faizal bin Abdul Rahman
- Y.Bhg.Dato' Mohd Yusof bin Hj Zainal Abiden
- Y.Bhg.Dato' Ibrahim Mahaludin bin Puteh - Chairman
- Ir. Abdul Kadir bin Mohd Din - Chief Executive Officer
- Y.Bhg. Dato' Othman bin Abdullah
- Ir. Dr Hj Hasnul bin Mohamad Salleh - absent
- Y.Bhg.Datuk Suboh bin Mohd Yassin - absent

Organisation

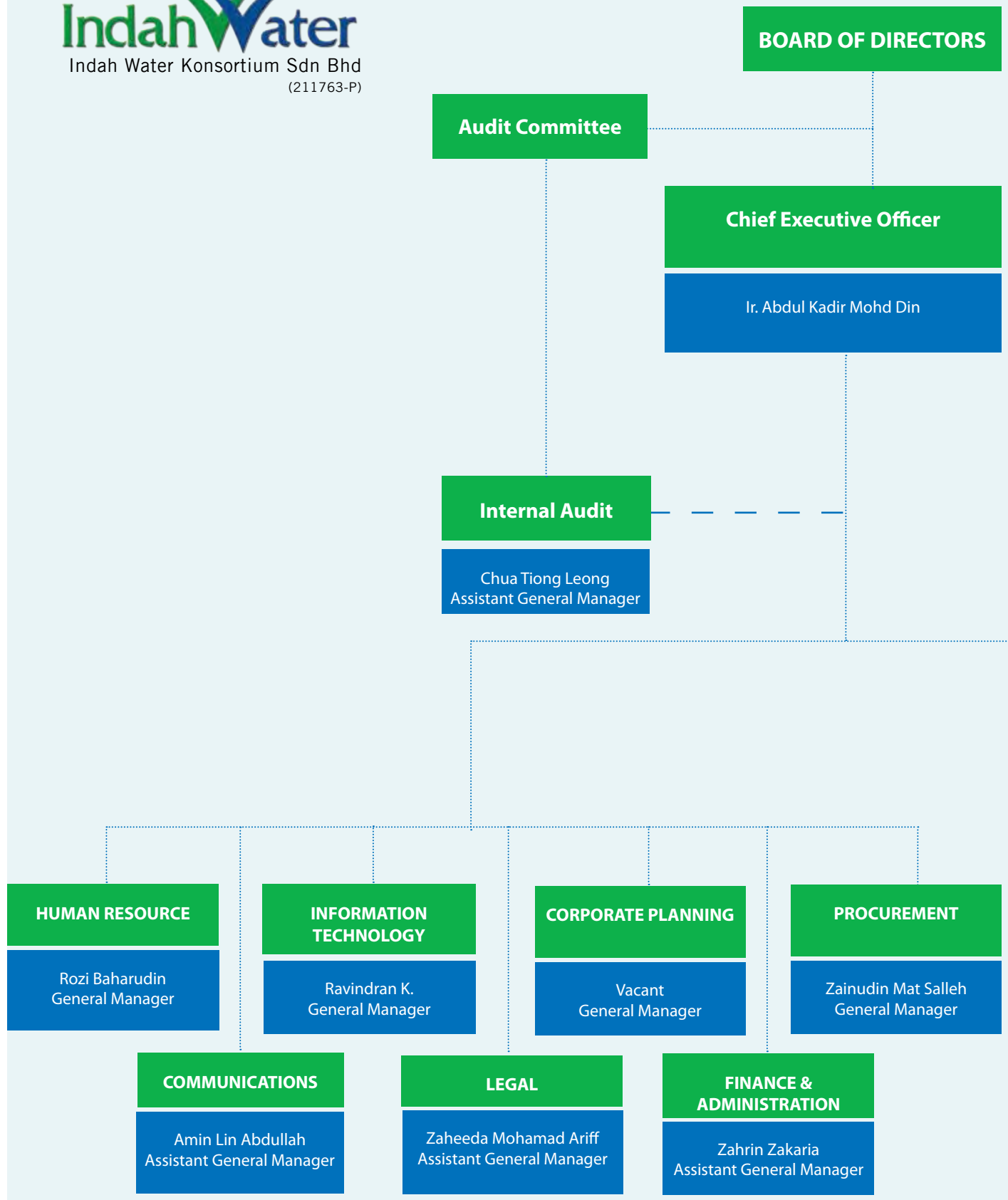
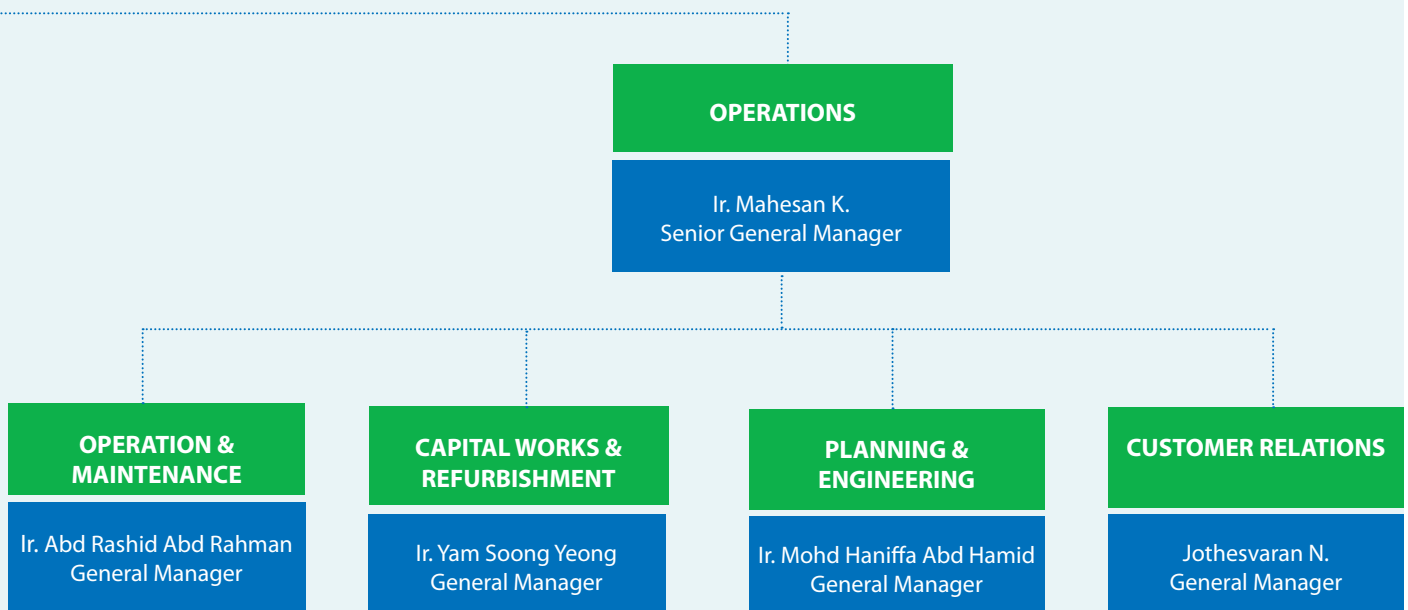


Chart 2009



Charting Our Sustainability Progress

In 2009, the following was achieved :

Our Workforce

- No. of staff: 2,723;
- No. of training: 122 Internal and 72 External courses;
- Employee Relation: Collective Agreement between management and employees was successfully concluded; and
- Staff Award and Recognition:
 - Ir. Haniffa (recipient of the UTM 2009 Alumni Award),
 - En. Zaidi Sahor (Local Agenda 21 Chairman, MP Kuantan) &
 - En. Mohamed Yusoff Abd Majid (BIEM Director).

Our Stakeholders

- No. of customer: 2.7 Million via Connected and Septic Tank Services;
- More than 95% public complaint responded within LOS;
- 96% sewer blockages inquiries attended to within LOS;
- 98% sewer collapse inquiries attended to within LOS; and
- 99% billing inquiries responded to within LOS.

Our Sustainability Efforts

- 73% STPs effluent compliance to DOE standards;
- 40% increase in effluent samples tested in 2009 compared to the previous year ;
- 95% operational, service and maintenance visits were carried out;
- 971 early warning systems installed in treatment plants as of Dec 2009;
- 71% of plants refurbished as of December 2009;
- 16 sludge treatment facilities were completed in 2008 and 2009;
- 2 regional plants obtained ISO 9001:2008 certification;
- 1 regional laboratory was certified under SMM accreditation; and
- 21 CIP (Continuous Improvement Programmes) projects were completed and implemented nationwide

Our Corporate Social Responsibility

- Special School Programme: 23;
- Observation Tours: 44;
- Community Events: 8;
- Briefing / Dialogue to Public, School, PLKN, etc.: 109;
- Charity Desludging for Religious Centres; and
- International Cooperation with ECO-Asia:
 - Co-hosted a regional workshop on septage management, May 09
 - Twinning Partnership with PDAM Tirtanadi of Medan and
 - Capacity Building in Halong, Vietnam.

Risk and Safety Management

- 140 selected customers enrolled in the 'Eye Program' implementation;
- No of accident: 23% reduction amongst Indah Water employee and 86% reduction amongst Indah Water's contractors compared to previous year; and
- Participated and presented paper in MBAM Annual Safety Conference in 2009.

Goal 2010

As a national sewerage company, we need to maintain our performance as the major service provider of sewerage services in the country. We have set targets for the coming year to guide our actions and to provide measures for our performance.

Our Workforce

- Increase in internal and external training programmes to be attended by Indah Water staff; and
- Re-launching of "Kelab Indah Water" and registration of membership.

Our Stakeholders

- Ensure high standards of customer service and meeting the set level of services (more than 95% compliance);
- Launching educational programs to non-paying customers;
- Issues reminders and notices to outstanding non-paying customers; and
- Increase stakeholder participation in capacity building.

Our Sustainability Efforts

- Increase plant visitation, monitoring of equipment and treatment processes to ensure compliance against the new sewage effluent standards (target more than 80% compliance);
- To provide more facilities for effluent monitoring (plan for a new regional laboratory);
- Pond desilting and sludge handling to improve plant performance;
- Continuous CIP (Continuous Improvement Plan) projects and R&D program to improve plant performance, sludge management and commercialisation of sewage by-product;
- Initiate and implement Green Technology projects and plant optimisation at selected regional plants for energy and cost savings;
- Increase electronic security systems especially for regional STPs; and
- Initiative to obtain ISO 9001 and ISO 14000 certification for selected regional plants.

Our Corporate Social Responsibility

- Increase sewerage awareness via various communication channels; and
- Continuous involvement in ECO Asia capacity building.

Risk and Safety Management

- Improve accident reporting and monitoring;
- Reduce accident via adequate safety awareness, training and equipment; and
- Continuous 'eye programme' implementation to reduce risk of theft and vandalism to our plants.



SIRNA ALIF

NDAH WATER KONSORTIUM SDN BHD
21-18-40 PUSK & 02 18-40 PUSK 111 SDARU CENTRE
116 LA TA ROKH 3000 KUALA LUMPUR

2.8 DIRECT INJECTION
MTB 140

BDM 4100KG
BTM 2150KG

Our Workforce

“It is our policy to train and develop our employees at all levels to equip them with the required knowledge and skills to become competent at their jobs”

Rozi Baharudin
General Manager - Human Resources Department



Our Staff

The number of public sewage treatment plants and sewer pipelines has grown correspondingly with growth in development. Indah Water has had to increase our manpower each year to service an ever growing number of public sewerage assets taken over and to meet stringent regulatory requirements. Our manpower has steadily grown from a mere 512 staff when Indah Water was formed to 2,723 in 2009.

Equality and Diversity

Due to the nature of sewerage work which involves working in dirty working conditions, the risk to individual health and safety is high. Male staff comprises 81% of our staff population in operations. We are, however, committed to practising equal opportunity and for executive and managerial staff, the percentage of female staff is 34% and 23% respectively.

Our staff force comprises different races with multi cultural and diverse backgrounds. They are given equal opportunity to show their competency, talent and skills. They are paid on a merit basis and their salaries adjusted according to their output and performance.

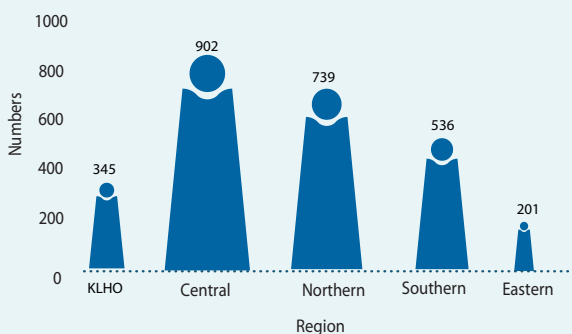
Staff Health, Benefits and Rewards

Handling sewage involves direct contact with wastewater, sewerlines, treatment process, sludge handling, etc. Due to our nature of work, our operators who are directly in contact with wastewater are closely supervised in terms of their daily uniforms, laundry facilities, personal protective equipment and we provide them with bi-annual health screening examinations.

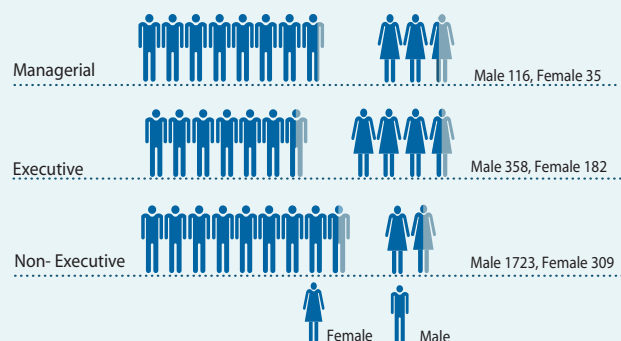
Our staff health and insurance benefits are critical as we are seriously concerned for the health of our staff and safety conditions. We provide retirement benefits to our non-executives staff as they form the core of our workforce. We have established key performance indicators (KPI) with our employees and increments and bonuses are paid based on their work performance. Indah Water adopted KPI system in 2005, and we are continuously updating these KPIs to meet the agreed changing business targets.

Although the nature of work in sewerage poses a health risk and is generally not attractive, we have a very loyal workforce evidenced by a very low turnover rate of approximately 8%. This is probably attributable to management style, working culture and benefits which we provide to them.

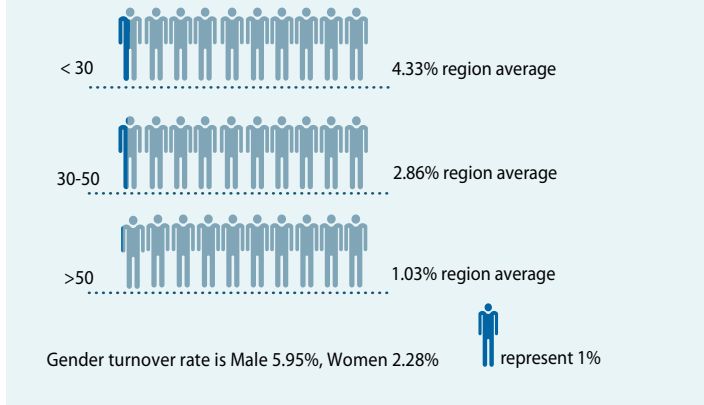
Total Workforce



Gender Category



Rate of Employee Turnover by age



Mask and tissues are provided for front counter staff

Pandemic Influenza H1N1 Preparedness Plan Instruction

Influenza A (H1N1) virus is a new virus for which we have little or no immunity. It is easily spread throughout the community and may affect our business activities, if not properly handled. Indah Water took the initiative to alert our employees and advised on preparedness to react appropriately within a week of the Ministry of Health’s announcement on 7th July 2009. The company developed a preparedness plan and distributed ‘the Pandemic Influenza A (H1N1) Preparedness Plan Instructions’ for employees and contractors nationwide.

Child Labour Policy and Non-Discrimination to HIV/Aids

Our company policy is clear and we are against the use of child labour. All recruitment are handled by the respective unit offices and further screening are carried out by Human Resources Department in Head office.



People with HIV/Aids lead normal lives and actively work and contribute to the company’s growth. Indah Water does not discriminate any job applicant or employees who test positive for HIV/Aids. Our pre-employment medical examination does not include HIV testing and we have never terminated any employee on these grounds.

Breach of Code of Conduct and Domestic Inquiry

Our employees are the most important assets in our organisation because they spearhead the Company’s success or failure. Having a disciplined workforce is crucial and it is a critical success factor for higher productivity and meeting organisational goals. Human Resource management is very challenging and we have established procedures for dealing with reward and punishment through our disciplinary procedures. We also have an established Code of Conduct which is outlined in a handbook and distributed to all our employees.

Our policy allows both internal and external stakeholders to report any breach of our Code of Conduct. Indah Water has established standard procedures to investigate any reported breach of our Code of Conduct by relevant committees and appointed selected, trusted third parties as part of our domestic enquiry procedure.



Our Workforce

Employer - Employee Communications



MoU Signing ceremony between Management of Indah Water and KPPIWK

Indah Water respects our employees' right to join the trade unions. We regularly conduct open employee and management discussions to discuss any work related issues and problems.

Since 1997, Indah Water management representatives have actively engaged with a newly established in-house employee trade union known as Kesatuan Pekerja-pekerja Indah Water Konsortium (KPPIWK). Through active discussions and negotiations with the Kesatuan, Management has been able to improve current benefits enjoyed by more than 1,500 non-executive staff and also further introduced additional benefits. Some of these benefits include a Temporary Relief Allowance (TRA/COLA), Retirement Benefit/Gratuity and a general increase in almost all allowances payable to our unionised staff.

Indah Water believes that employee engagement is a crucial and we believe in keeping our employees informed of the activities undertaken by management and to disseminate any news or information. We work with various modes of communication to disseminate news which includes our webpage for external stakeholders and intranet for inter-departmental knowledge sharing of news. Like most organisations, the E-mail facility has become the most common means of direct communications besides the telephone and facsimile.

Capacity Building

Staff's Training and Development

All new employees are required to attend Indah Water's induction course in order to familiarise themselves with company's core business, vision, mission, management expectations and to gain a better understanding of the activities of all the departments within the Company. In addition, our staff are provided with on the job training. This is complemented with various internal and external formal training to improve their quality of work and to help them work towards continuous improvement.

We believe in investing in our people and developing them to their fullest potential. With a staff strength of 2,723, our staff are the key deliverers of our sewerage services to the public and improving their performance is key to upgrading the company's status as the national sewerage services provider. As such, we provide a wide variety of internal training modules (more than 100 courses) suitable to job requirements which include developing office skills, information technology (IT) skills, team building, supervisory and managerial skills, health and safety skills (inclusive train the trainer modules), Electrical and Mechanical Courses, Treatment Plant Operator Courses, Desludging Operator Courses, Network Operator Courses and Specialised Sewerage Technical Courses. In addition, we regularly send our staff to attend external specialised technical and non-technical training courses for continuous improvement to meet their developmental needs.

Indah Water invested more than RM1 Million for training of our staff in 2007 and 2008. Due to the economic downturn, we reduced our training cost to RM800 thousand in 2009. The number of training conducted internally in 2008 increased by 34%, which is equivalent to a 55% increase in number of staff being trained compared to the previous year. The number of training courses was then reduced by 32% which is equivalent to 45% reduction in the number of staff trained in 2009 due to the economic crisis. The company will, however, continue with our capacity development efforts as the way forward.

Year	Internal Training			External Training		
	No	Staff	RM (Mil)	No	Staff	RM (Mil)
2007	134	2,331	0.98	155	397	0.29
2008	180	3,624	1.44	142	261	0.18
2009	122	2,007	0.71	72	152	0.11

FROM RIGHT, CLOCKWISE

Indah Water has strict guidelines in place, requiring all staff to undergo health and safety training.

Typical working condition environment in confined space makes the job more attractive to male workers

Indah Water offers diverse sewerage technical courses (more than 30) that are designed to suit the needs and demands of the sewerage sector

ESQ in-house training at Holiday Villa, Subang Jaya



We believe better productivity can be achieved via nurturing building our staff capacity. We sent 228 Indah Water employees to undergo a 3 day ESQ 165 training at the Holiday Villa in Subang. In this training, participants were enlightened with God Spot, which develops self awareness by discovering 7 core values that are embedded in one’s heart, namely (i) Trustworthiness (ii) Responsibility (iii) Visionary (iv) Discipline (v) Teamwork (vi) Fairness and (vii) Caring.

Specialised Training

Indah Water offers diverse sewerage technical courses (more than 30) that are designed to suit the needs and demands of the sewerage sector. These courses are offered to both internal staff as well as interested external stakeholders. Our training centre has classroom facilities to accommodate between 70 to 100 participants, depending on the course delivery type (lecture, practical, workshop, seminar, etc).

Our Technical Training Centre (TTC) is equipped with mock up sewage treatment facilities for hands on training. It is located within the compound of our Sg. Besi Regional Treatment Plant, Bukit Jalil. It is a dedicated location for training on sewerage systems that focuses on theoretical and practical modules for staff and the wider public.

Personal and Professional Development

Indah Water has continuously invested in sewerage related knowledge and skills training required to improve our service quality and enhance our performance. At the initial stage, Indah Water invested huge amount of monies to bring sewerage professionals from overseas to conduct training. To-date, we have developed a host of in house, structured sewerage training modules which are conducted by our own qualified and experienced staff.

Our training modules have been endorsed since 1999 by academic institutions where our sewerage modules were developed to suit the diploma program and Master’s degree programme in wastewater engineering through collaboration between Indah Water, Sewerage Service Department, Malaysian Water Association and Universiti Teknologi Malaysia. Indah Water sponsored a number of selected staff to obtain their Master’s Degree in Wastewater Engineering.

Our Workforce

Knowledge Sharing

We recognise knowledge constitutes a valuable intangible asset for creating and sustaining competitive advantage. We encourage knowledge sharing by giving our staff incentives for sharing their knowledge and experience to train new employees.

Employee Engagement

Sewerage services involves direct cleaning of wastewater to meet regulatory standards. We believe in conducting strong induction, various skills related training and other capacity building initiatives to ensure employee engagement at all levels. We also develop Key Performance Indicators to gauge

work performance and ensure compliance to set targets. As incentive, outstanding staff performance is rewarded with higher bonuses and increments.

We believe that employee engagement is not limited to business activities. As such, we habitually encourage employee engagement through various activities such as sports carnivals, bowling tournaments, treasure hunts, parties to celebrate festivities such as Hari Raya, Gong Xi Fa Chai, Deepavali, Christmas, etc. In these activities, our staff and management participate equally and compete to show their talents and skills in an informal environment.



Bowling, carrom, volleyball competition as part of Indah Water Sport Carnival activities



Indah Water Sport Carnival 2008 that was held at UKM Sport facilities, Bangi

The annual "Salam Aidil Fitri Indah Water Konsortium" event in 2008 was celebrated with our stakeholders from JPP, KeTTHA and SPAN as our guests which was held at the Dewan Komuniti DBKL on 16th October 2008. Amongst the activities held at this event were the 'ketupat' craft making competition, satay eating competition, best dressed competition and lucky draws. Winners and lucky guests received prizes such as hampers, gifts, goody bags and 'ang pow'. Our staff and guests were entertained by shows featuring local artistes. Similar celebrations were held at our 18 unit offices nationwide. In the following year, a similar event was also held on 8th October 2009 at which our new Indah Water Chairman, Y. Bhg. Dato' Ibrahim Mahaludin gave the opening address.

On 1st August 2009, our company organised Indah Water's treasure hunt competition, where Indah Water's staff nationwide participated in treasure hunt from headquarters office to Cherating, Pahang. A total of 47 cars participated in this treasure hunt, which started in the morning and arrived at Cherating in the evening. The top 3 winners received money and hampers and other lucky participants received lucky draw prizes.



Indah Water Chairman, Y. Bhg. Dato' Ibrahim Mahaludin gave opening address for hari raya aidilfitri 2009 event



Treasure hunts briefing, participants' car departs for Cherating, Pahang and friendly beach volley ball game

Our Workforce

Staff Awards and Recognition

We take pride in the fact that our General Manager for Planning and Engineering Department, Ir. Mohamed Haniffa Abdul Hamid, was the recipient of the University Technology Malaysia's 2009 Alumni Award on 5th December 2009.

Ir. Haniffa has contributed to the development of the national sewerage industry, particularly in the areas of standards and guideline development, design, construction, quality control and environmental and safety management. He represents Indah Water and the local sewerage industry at various national level technical committees and has also embarked on Research and Development in many areas within the wastewater sector.

Ir. Haniffa also sits on the Advisory Panel on Civil Engineering at UiTM and UTM and is an elected Member, Board of Studies, Kuliyyah of Engineering at the International Islamic University (UIAM).



Ir. Mohamed Haniffa Abdul Hamid receiving Alumni Award from UTM



En. Zaidi Sahor

Our Kuantan Office Unit Manager, En. Zaidi Sahor has been selected as the Chairman of the Environmental Conservation Committee in the Kuantan Municipality under Local Agenda 21.

Local Agenda 21 (LA 21) was born out of the United Nation Conference on Environment and Development (UNCED) and is well known as The Earth Summit, initially held in Rio de Janeiro in 1992. LA 21 is essentially a global action group which develops the blueprint for sustainable development. In Malaysia, 4 Local Authorities were chosen to be the first implementing LA21 in 1999. They are the Miri Municipal Council, Petaling Jaya Municipal Council, Kerian District Council and the Kuantan Municipal Council.



Briefing on glass / bottles collection that was held on February 2009



Programme "Sayangi Alam Sekitar" that was held on April 2009

En. Zaidi Sahor has more than 10 years experience with Indah Water and manages 88 workers at Kuantan Unit Office. This Unit Office is expected to grow to 100 staff in 2010.

En. Zaidi Sahor was appointed as Chairman from 2006 to 2009, for the Kuantan Municipality Environmental Conservation Committee which consists of NGOs, Local Authorities, DOE, Petronas, Alam Flora, DID, Forestry Dept., UMP, Komuniti College, Kuantan Youth Club, etc. This committee meets 5 to 8 times annually, depending on necessity. Part of environmental related activities they undertake include 3R campaign, tackling river and irrigation issues, trees planting at beaches, holding exhibitions to educate the public regarding the environment, carrying out environment awareness programmes involving university students, beach clean up, school campaigns, etc.



Indah Water is also proud of En. Mohammed Yusoff Abdul Majid. He is a Senior Manager of Employee Relations Section under Human Resources Department. He has been with the company for almost 10 years and directly handles all matters pertaining to the Union and its members as well as overall employee relations for the Company.

En. Mohammed Yusoff Abd Majid

En. Mohammed Yusoff was appointed as a Director in the Business Ethics Institute of Malaysia (BEIM) since the year 2007. BEIM is a non-governmental organisation committed to promote ethics through education, inculcation and nurturing of values such as honesty, fairness, integrity and self regulation among businesses. BEIM is an independent and non-profit organisation incorporated as a company limited by guarantee under the Companies Act 1965. It was formed in 1997 with the endorsement and support of the Ministry of Domestic Trade and Consumer Affairs to create awareness and the practice and inculcation of ethical values among businesses in Malaysia. Members include domestic and international companies.

Among the activities that are carried out by BEIM are talks on "Business Ethics", the launching of the Malaysian Code of Business Ethics, provision of advisory services to members, providing training in business ethics and meeting with various government departments to give views on business ethics.

As a member of the Board of Directors of BEIM, En. Mohammed Yusoff also attends board meetings of BEIM typically no less than 6 times in a year. BEIM has 60 members and its membership is growing.



Our Stakeholders

NO. ADUAN LPKP
TEL: 1 800 88 9600
SMS: 39900

70 80
LEBUHRAYA
Km/J

“We strive to keep our customers satisfied. We believe that a strategic approach which is rooted in understanding the nature and importance of the stakeholder relationship is what elevates a communications program from being ordinary to being truly transformative at all levels.”

Our Stakeholders

“Effective communication with stakeholders is essential to keep stakeholders informed and hence involved, and ensures that expectations are met at all levels”

Ir. Abdul Kadir Mohd Din
Chief Executive Officer
Indah Water Konsortium Sdn Bhd



Our stakeholders include our regulators, customers, employees, business partners, consultants, contractors, suppliers, academics, non-governmental organisations, environmental groups, community leaders, individuals with interest in the sewerage and water sectors and the communities in which we operate.

We believe a good relationship with all our stakeholders is crucial to our operations. We believe in keeping our stakeholders informed and involved through active communication with them. We believe that a strategic approach that is rooted in understanding the nature and importance of the stakeholder relationship is what elevates a communication program from being ordinary to being truly transformative at all levels.

Providing quality output and meeting business targets are crucial to our operations. Our services are also regularly audited by our regulators (SPAN, SSD and DOE). Our stakeholders and the general public also act as barometers of our performance in how they express their gratitude or complaints through various

annual survey forms, online and interactive smses, hot line, web page, slow mail and the mass media.

Our Regulators

Prior to 1993, the sewerage management in Malaysia was under the jurisdiction of local authorities. The level of expertise and financial capabilities for sewerage management varied widely between local authorities nationwide. Thus, the standard of sewerage services was not consistent nationally. In realising the need to upgrade the sanitation level in the country, the Malaysian government took a bold step in federalising the management of the sewerage services in the country. The Sewerage Services Act (SSA) was enacted in 1993 to empower the Federal Government to regulate the sewerage industry. The Department of Sewerage Services (SSD) was formed under the Ministry of Housing and Local Government and made the regulator of the sewerage industry. The SSA enabled the Federalisation and Privatisation of Sewerage Services.

The Signing Ceremony for Sewerage Planning and Technical Service Agreement between Government of Malaysia and Indah Water Konsortium

Indah Water

SPAN
Suruhanjaya Perkhidmatan Air Negara

KeTTIA
KEMENTERIAN TENAGA,
TEKNOLOGI HIJAU DAN AIR



In the year 2004, the Federal Government did a restructuring exercise and moved the Water Supply Department from the Public Works Ministry and the Sewerage Services Department from the Housing & Local Government Ministry to the Ministry of Energy, Water & Communications. This move created a fresh direction for the future of the water and sewerage regimes. The Water Services Industry Act 2006 (WSIA) and the National Water Services Commission Act 2006 (SPAN) were gazetted at the end of 2006. The new WSIA envisages a merger between water and sewerage sectors in the country. These new legislations have paved the way for an integrated approach. SPAN as the new integrated regulator for water and wastewater services was officially announced in February 2007.

The Water Services Industry Act 2006, officially came into effect on 1st January 2008 for Peninsular Malaysia and Federal Territory of Labuan. It does not encroach nor affect the general application of existing laws on environmental quality, land matters and existing state powers over the water source. Under WSIA, communal septic tanks (CSTs) and individual septic tanks (ISTs) fall under individual owners/ tenants' responsibility. It simply means that the owners/ tenants may engage any approved service licensee or license permit holder to operate, maintain and desludge their CSTs and ISTs. These permit holders and Indah Water (as service licensee) are regulated by SPAN.

Prior to 2008, our regulators were the Sewerage Services Department (SSD) and the Department of Environment (DOE). However, under WSIA and SPAN, our main regulators are SPAN and the Department of Environment. We work closely with SPAN on all sewerage related policies, regulations, guidelines, sewerage related issues, fees, compliance requirements, etc. Nevertheless, we are still being regulated by SSD particularly in monitoring performance of capital works programs including refurbishment and upgrading works.

Other than WSIA 2006, Indah Water services are also bound under the Environmental Quality Act (EQA) 1974 and its subsidiary legislations particularly Environmental Quality (Sewage and Industrial Effluents) Regulations, 1979. All effluent discharge and sludge disposal must be in compliance with the DOE requirements. Other regulations that sewerage facilities must adhere to are:

- Environmental Quality (Clean Air) Regulation, 1978
- Factories and Machinery Act 1967 (Act 139),
- Factories and Machinery (Noise Exposure) Regulations 1989
- Factories and Machinery (Mineral Dust) Regulations 1989
- Occupational Safety and Health Act 1994 (Act 154)
- Occupational Safety and Health (Control of Industrial Major Accident Hazards) Regulation, 1996



In addition, the sewerage treatment facilities must be in compliance with the Sewerage Services Act 1993, by which the SSD has published the Guideline for Developers (Vol I, III, IV and V) since 1994 to 2006. However, as government restructures the water sector with the passing of WSIA 2006, SPAN has taken over the regulatory role and policy management of the sewerage and water sectors. As such, the publication of latest edition of the Malaysian Sewerage Industry Guidelines (Vol III, IV and V) was established in 2009 by SPAN. Sewerage Services Department continues to monitor capital works project and refurbishment works that are government funded.

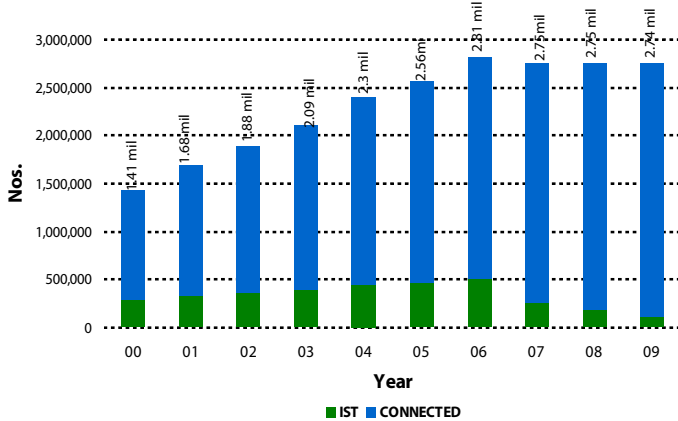


Our Stakeholders



Our Customers

Total Numbers of Customers



The public become our customers through utilising the following services:

- Septic tank, primitive and pour flush systems (desludging activities by demand or scheduled)
- Connected systems (each house/ building connected to main sewerlines or sewer network which conveyed the sewage to a sewage treatment plant maintained by Indah Water)

Indah Water serves 2.7 million customers via connected and septic tanks services.

However, the number of IST served is lesser with the enforcement of WSIA in January 2008, since WSIA entrusts the responsibility of desludging and maintenance of septic tanks (including communal septic tanks) to each individual owner or residents of each premise. As such, since 2008, our services to the public for IST are by demand only. We continue to serve government offices/buildings as usual via scheduled desludging.

Customer Charter and Response Time

Our customer charter sets out the broad philosophy of Indah Water in providing sewerage services to the public in accordance to regulatory requirements. The charter informs our customer of our services and commitment to them, level of service, complaint procedures, and the various methods and addresses through which they can contact us. This customer charter details the targets that we use to assess our performance in servicing our customers.

Our Customer Charter



The Customer Charter outlines Indah Water's commitment in providing sewerage services and ensuring the standard of customer service that each customer can expect.

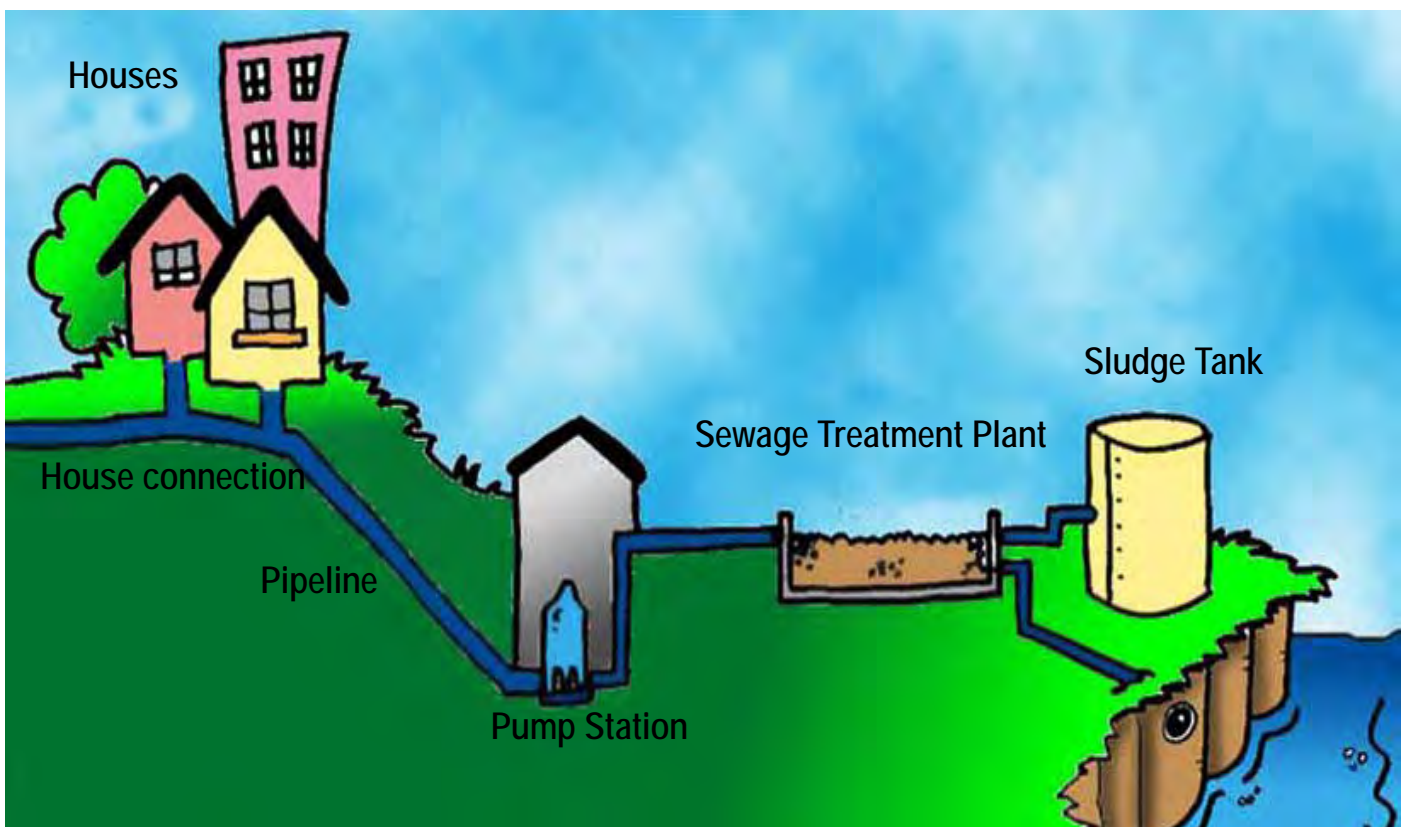
Accordingly, we will ensure efficient sewerage services by :

- Operating and maintaining all public sewerage systems to meet the requirements and conditions set by the National Water Services Commission (SPAN) (Regulator) and the Department of Environment;
- Desludging all customers' septic tanks on a scheduled basis once every two years or on request by customer;
- Conforming to environmentally sound practices in the treatment and disposal of sewage and sludge;
- Using appropriate technology and applying cost effective measures in all areas of our operations.

We will ensure high standards of customer service by :

- Being on call 24 hours a day, 7 days a week to respond to service emergencies;
- Responding to service complaints within 24 hours;
- Responding to requests for desludging of septic tanks within 48 hours;
- Replying to all written billing and operation enquiries within 3 working days;
- Answering all calls to our dedicated customer service lines within 15 seconds;
- Keeping service appointments to within 30 minutes of agreed time and notifying customers when delays are experienced, if customers can be contacted.

We are accountable to our customers in complying with the above standards, which are regulated and monitored by the National Water Services Commission (SPAN).



Our Stakeholders

Our Other Stakeholders

Our main shareholder is the Ministry of Finance. Besides the regulators and our customers, other stakeholders include the Ministry of Energy, Green Technology & Water (KeTTHA), our consultants, contractors, suppliers, academia, NGOs, etc. However, this report does not discuss in detail these stakeholders as their involvement are not as major compared with our main stakeholders discussed earlier.

The public closely monitors our performance and regularly keeps us updated on any sewerage related and environmental issues directly to our staff at site, or via our customer careline telephone (no 1-800-88-3495), smses (to 36399 type IWK<space>message), email (care@iwk.com.my), through our web page (at www.iwk.com.my) or via the mass-media.

Stakeholders Engagement in Company's Activities

Stakeholders' engagements are critical in our daily business practices. We work closely with our regulators by having frequent meetings, discussions, conducting site visits and through regular reporting. Activities that have been held to promote stakeholder engagement include the following:

- More than 50 meetings with DOE were attended in 2008 and 2009
- A total of 1,048 schedule plant site visits and joint samplings were conducted with DOE in 2008 and 2009
- More than 120 meetings with Regional SPAN were attended in 2008 and 2009

- More than 350 of STPs were audited by Regional SPAN in 2008 and 2009
- Monthly report submission on Certifying Agency performance to SPAN Regional Office and quarterly submissions to SPAN headquarters
- 20 Certifying Agencies have been audited by SPAN
- More than 1,000 One Stop Agencies (OSA) meetings attended by Certifying Agencies
- Monthly reporting on Capital and Refurbishment Works to JPP and quarterly meetings with JPP

We believe stakeholders' engagement should not be limited to business or work related activities only. Stronger relationship with stakeholders is built through informal participation of stakeholders in various company activities such as festivities celebrations and sports activities. We always extend an invitation to our regulator and stakeholders on such occasions.

One of such activity was a friendly bowling tournament organised by the company on 15th November 2009 at Pyramid Megalanes, Sunway Pyramid. In this activity, we felt that "the more the merrier" was appropriate. As such, we had a total of 36 teams and the bowling alleys were full with participants, including stakeholders from SPAN, SSD, KeTTHA, PAAB, JKPP, etc. The top 10 winners and best players received trophies and hampers, whilst other lucky participants received lucky draw prizes.

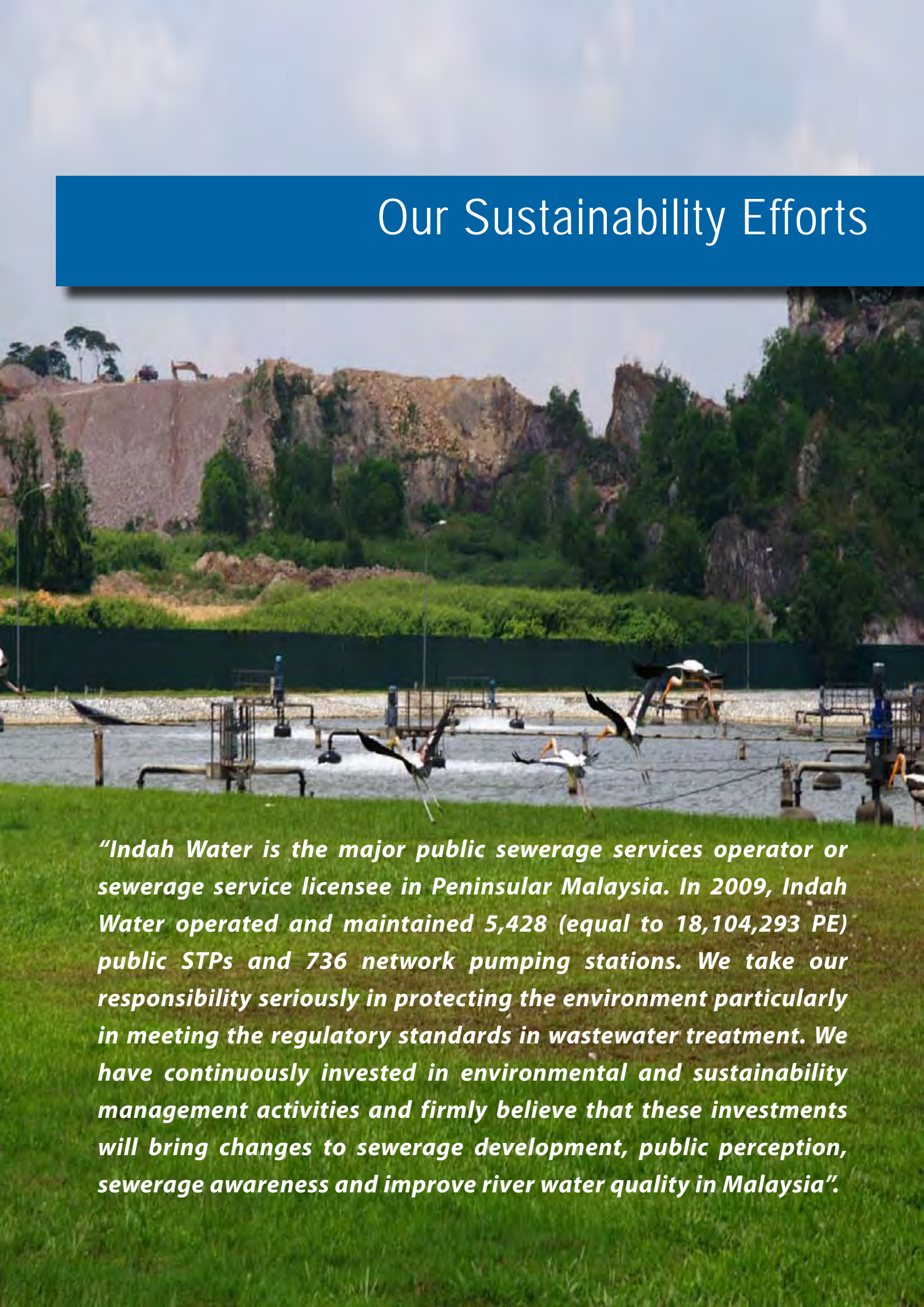


Bowling tournament that was held in March 2008 at Pyramid Megalanes, Sunway Pyramid.



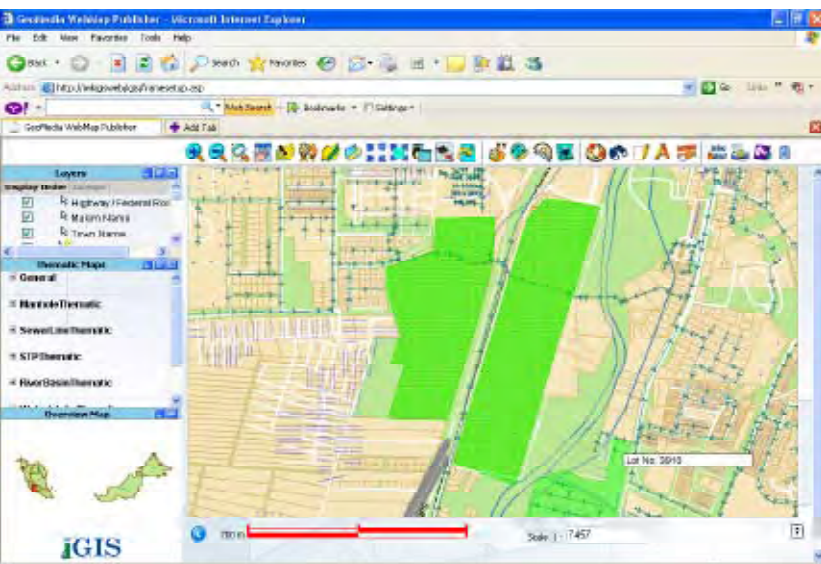
Bowling tournament that was held in November 2009 at Pyramid Megalanes, Sunway Pyramid

Our Sustainability Efforts



“Indah Water is the major public sewerage services operator or sewerage service licensee in Peninsular Malaysia. In 2009, Indah Water operated and maintained 5,428 (equal to 18,104,293 PE) public STPs and 736 network pumping stations. We take our responsibility seriously in protecting the environment particularly in meeting the regulatory standards in wastewater treatment. We have continuously invested in environmental and sustainability management activities and firmly believe that these investments will bring changes to sewerage development, public perception, sewerage awareness and improve river water quality in Malaysia”.

Our Sustainability Efforts



Holistic Approach

Indah Water is a public sewerage services operator and sewerage service licensee holder. Our approach to sewerage management is holistic and goes beyond operational works. Sewerage services cover planning services, testing, operations and maintenance, monitoring, sampling and providing regular reports to regulators.

Our works includes the followings:-

- Development plan checking against existing sewerage master plan and update local sewerage master plans
- Verify, update and digitise sewerage assets into database/ asset profiling
- Provide desludging services
- Perform scheduled operations and maintenance on sewerage assets (STP, NPS and sewerlines)
- Carry out refurbishment works and upgrading of sewerage assets via government capital works
- Monitor sewerage assets compliances via regular sampling and analysis
- Carry out Corporate Social Responsibility programmes for community, next generations and stakeholders on the awareness of the environment and sewerage services
- Provide theoretical and hands-on sewerage training to internal and external stakeholders
- R&D works and pilot trials with university and interested stakeholders related to sewerage sector

Sustainable Behaviour

Our company treats wastewater to meet regulatory standards. Thus, our staff directly committed to sustainable behaviour in cleaning up the environment. In line with developments within rural and urban areas, sewerage management is the key activity that needs to be addressed to keep water resources clean and protect the environment. However, we are at the early stage of sustainable behaviour particularly in resources conservation

“Environment is key to our business” so we operate, maintain and enhance the condition of all our assets at lowest possible cost and consistent with customer, community and regulatory needs.



Ir. K. Mahesan
Senior General Manager
Operation & Maintenance Department



and monitoring of carbon footprint.

Measuring performances

Indah Water is liable to comply with effluent discharge standards stipulated under the Environmental Quality Act, 1974 and the Environmental Quality (Sewage and Industrial Effluent) Regulations, 1979. Additionally, we are also being monitored by our regulator, Suruhanjaya Perkhidmatan Air Negara (SPAN), under Water Services Industry Act 655 (WSIA), 2006.

With merely 2,700 staff, Indah Water provides various services in sewerage management. As such, measuring performance is an ongoing and continuous process at Indah Water. In this report, we highlight monitoring of operational services and maintenance visitations, STP effluent sampling, compliance monitoring and analysis, to ensure all plants are attended to and comply with the standards set. We also monitor desludging services particularly for government premises even though we are not liable under the new WSIA requirement. In addition, we also monitor customer complaints and emergency response time to ensure compliance with our targeted level of services (LoS). We also monitor refurbishment and capital work programs to upgrade the outdated, damaged and inefficient facilities to meet more stringent regulatory requirement based on available funds. Apart from monitoring the effluent quality (liquid end products), we also monitor the sludge (solid end products)

disposal activities.

This report also highlights our climate change and carbon footprint initiatives for the past 3 years. We also discuss continuous improvement programs, research and development works, green technology and environmental awareness initiatives carried out and finally, the cost implications from these activities are tabled in the following sections.

“We ensure on-going, timely, cost effective, reliable and sustainable improvement in all facets of our operations. We strive to keep an awareness of information and operational technology developments to support continuous learning.”



Ir. Abdul Rashid Abdul Rahman
General Manager
Operation & Maintenance Department

Our Sustainability Efforts

Operational Service and Maintenance Visit

With limited number of staff and escalating numbers of STPs taken over annually, Indah Water is unable to fully operate and maintain the plants solely by ourselves. As such, we have to outsource some of plant operational and services visits to certified and approved contractors. Despite the increasing number of plants, we are able to improve our service and maintenance visits level to 95% this year.

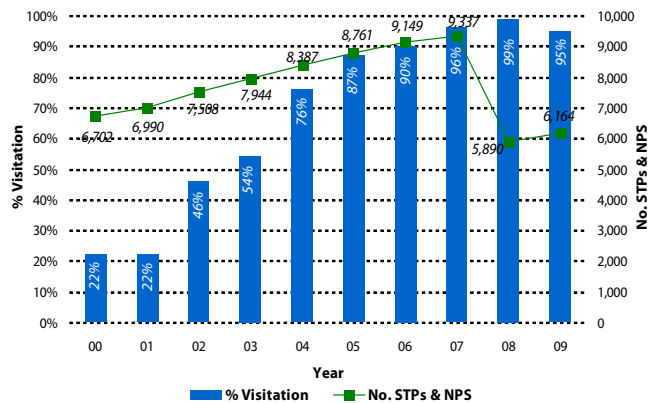
As of 1st January 2008 with WSIA implementation, Indah Water is no longer responsible for operation and maintenance of more than 3,000 communal septic tanks (CSTs) nationwide. The CSTs has been re-categorised under WSIA as septic tank and shall be under the responsibility of the owners and tenants. As such, there was a huge drop of number of STPs serviced by Indah Water in 2008. However, the total number of service visitation only was slightly reduced as we still monitor CSTs based on demand post WSIA effective date.

STP Effluent Sampling and Compliance Monitoring

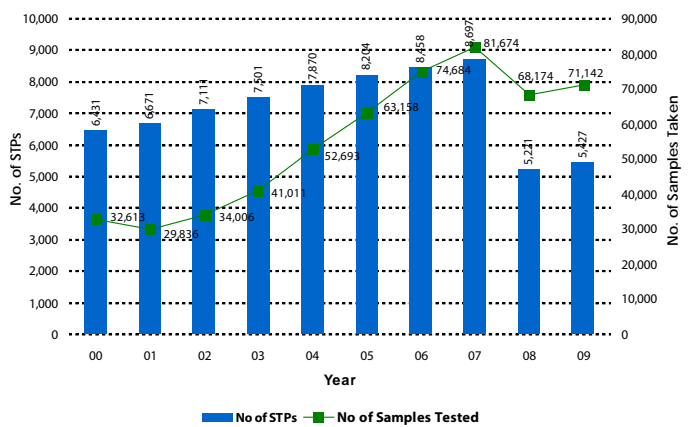
In 2007, Indah Water monitored 8,697 STPs and had taken 81,674 monitoring samples; on average, the number of samples taken are about 9 times the number of STPs. In compliance with WSIA requirements in 2008, we have reduced the number of actual samplings taken to 68,174 which corresponds to 5,221 STPs. This has increased the sampling frequency to an average of 13 times the number of STPs (40% increase compared to the previous year). In 2009 the number of samples tested further increased by 0.4%.

Effluent samplings are critical to monitor plants performance and compliance with the EQA requirements. As an agency tasked with treating wastewater, Indah Water still monitors the compliance of communal septic tanks even though it is no longer required under WSIA. Our STP compliance (including CSTs) has improved from 37% in 2000 to 73% in 2009. Our compliance level remains the same if CSTs are excluded.

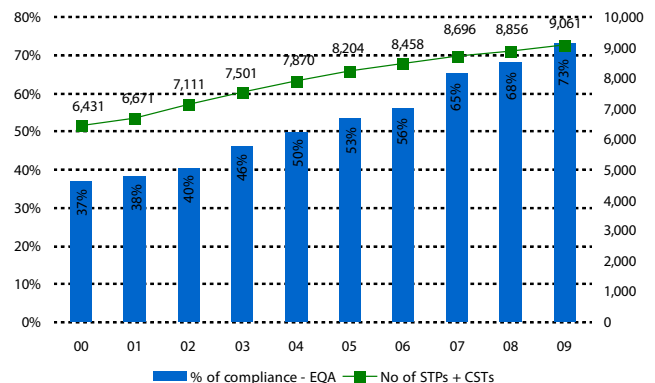
Percentage Visitation vs Number of Plants



Number of Samples Tested from Year 2000-2009



Number of Plants Sampled and Percentage of Plants meeting DOE's Standards

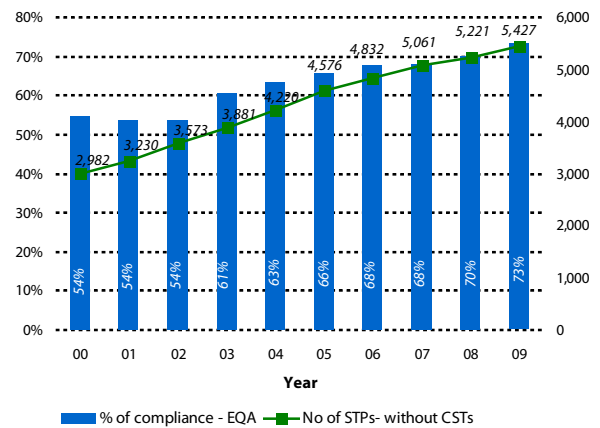


We have further analysed our performance on compliance by dividing our STP in type of plants i.e. Mechanical vs. Non-mechanical plants. We have found that compliance of mechanical plants (such as extended aeration, sequencing batch reactor, etc) are higher at 73% in 2008 and increased to 75% in 2009, compared to that of non-mechanical plants (such as oxidation ponds, communal septic tanks and imhoff tanks) at 53% and 64% in 2008 and 2009 respectively.

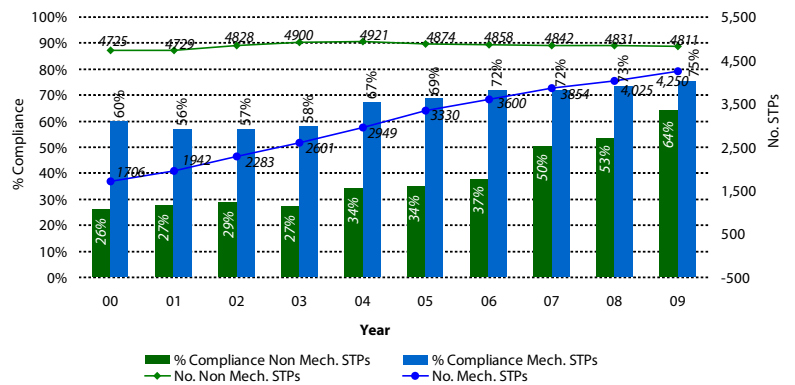
We also have analysed further the compliance based on Standard A and B effluent discharge requirements. There are 1,410 STPs within Standard A catchment and all of them were unable to comply with stringent effluent discharge requirement particularly in terms of negligible oil and grease levels specified under EQA. Our treatment plants are not designed to treat oil and grease, which should have been precluded or treated at source.

Although our treatment plants are unable to treat oil and grease biologically, we have continuously improved our effluent compliance from 43% in year 2000 to 82% in 2008 and further improved to 88% in 2009 for all STPs within Standard B catchment areas (inclusive of CSTs).

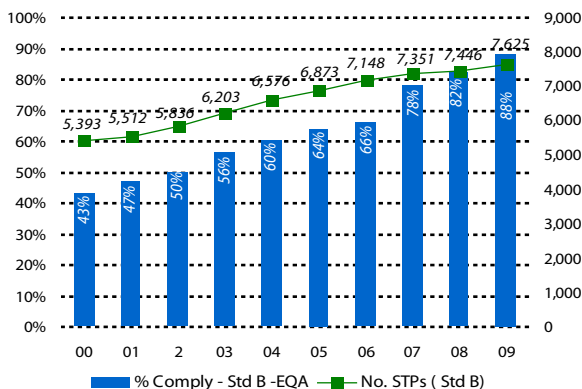
Number of Plants Sampled and Percentage of Plants (excluding Communal Septic Tanks) meeting DOE's Standards



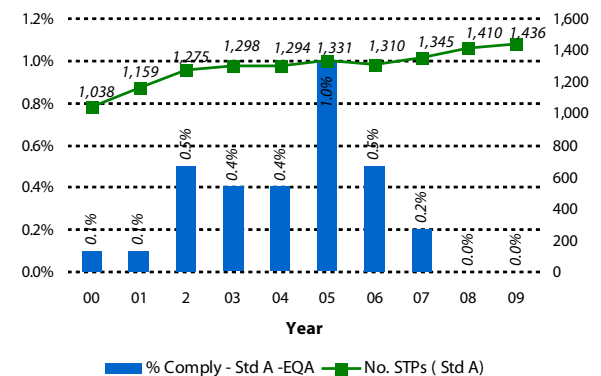
Effluent Discharge - % meeting EQA Standards for Mechanical and Non-Mechanical Plants



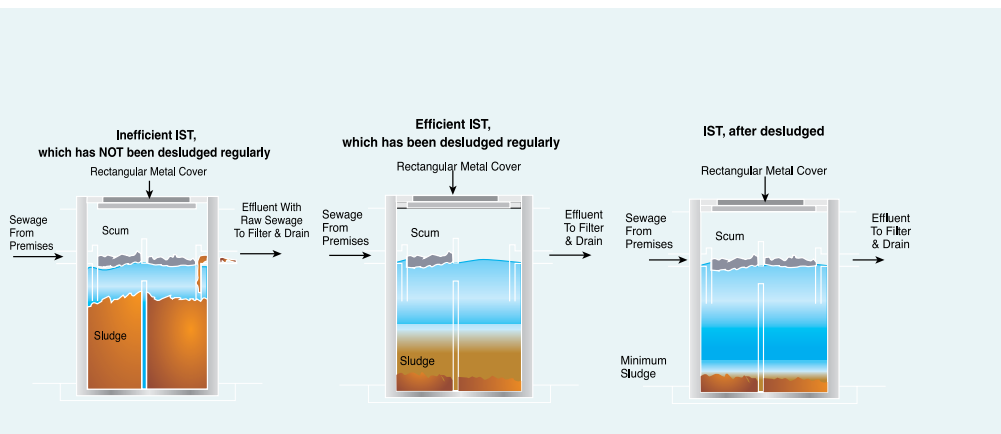
Effluent Discharge - Percent of Treatment Plants in Standard B Catchment meeting DOE's Effluent Standard (Year 2000-2009)



Effluent Discharge - Percent of Treatment Plants in Standard A Catchment meeting DOE's Effluent Standard (Year 2000-2009)



Our Sustainability Efforts



Desludging Services

With effect from 1st January 2008, Indah Water is no longer responsible for providing scheduled desludging services of septic tanks (including communal septic tanks). Under the Water Services Industry Act 2006, owners or tenants of premises with septic tanks (inclusive communal septic tanks or CSTs) are responsible for the maintenance of their septic tank.

The maximum volume of sludge that a septic tank can store is approximately one third of its total volume. Regular desludging or removal of the accumulated sludge in the tank is critical to prevent water pollution. The frequency of desludging is dependent on the capacity and design of the septic tank. According to Malaysian Sewerage Industry Guidelines (MSIG) for Septic Tanks (Volume V), desludging of a septic tank must be done not less than once every two years to restore the designed treatment capacity. Without scheduled desludging, untreated sewage and sludge solids will be released into rivers. This will cause depletion of dissolved oxygen in these rivers, resulting in the death of aquatic life.

The large quantities of sludge that settle to the bottom of rivers if wastewater is not treated will also kill any aquatic plants that contribute oxygen to the rivers. This will cause our rivers to eventually 'die'. In addition, untreated sewage also poses a threat to public health since it may contain pathogenic bacteria and viruses that cause deadly diseases such as cholera, typhoid and hepatitis A.

Although Indah Water is no longer responsible for desludging septic tanks nationwide, we still provide regular scheduled desludging to government buildings and offices nationwide. We also provide desludging services to private owner/ tenants based on demand or 'call for services'. This is called responsive desludging service, for which the customer has to pay a fee for each septic tank and/or trip completed. The rate per services charged can be viewed on our website at www.iwk.com.my.



"Our Customer is our priority" so we provide reliable, responsive and affordable services in line with explicit customer accepted level of service.

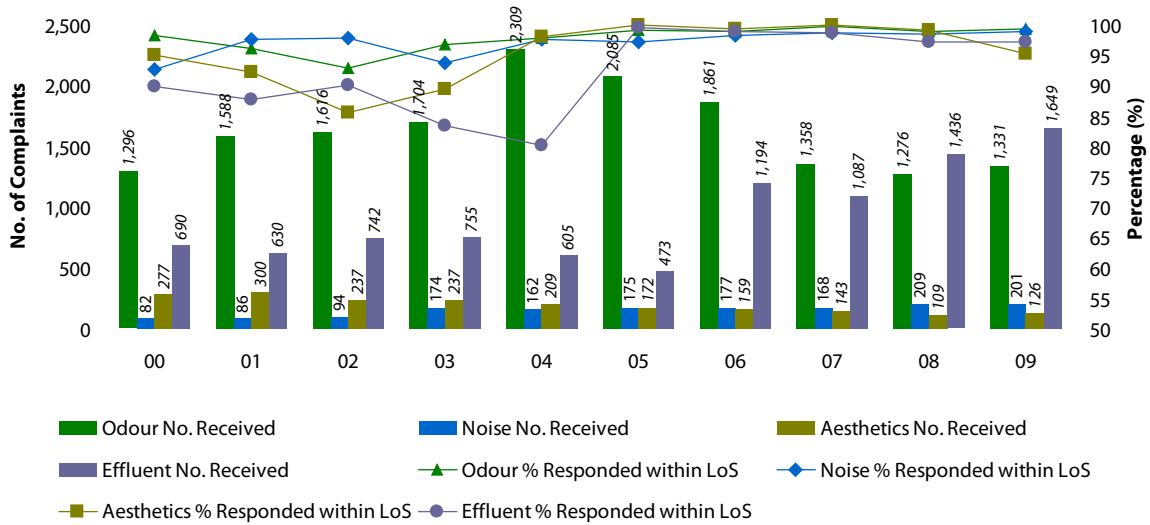
Jothsvaran Nadarajah
General Manager - Customer Relations Department

Customer Complaints and Response Time

For the last 10 years, the public has always directly contacted us to complain on any grievance or dissatisfaction they may have on sewerage matters (especially odour related). Indah Water monitors and strives to respond to these complaints within the

set targets. To date, our level of service is more than 95% within target in responding to customers' complaints related to odour, noise, effluent and aesthetics.

Public Complaint Received and % Responded within Stipulated Level of Service



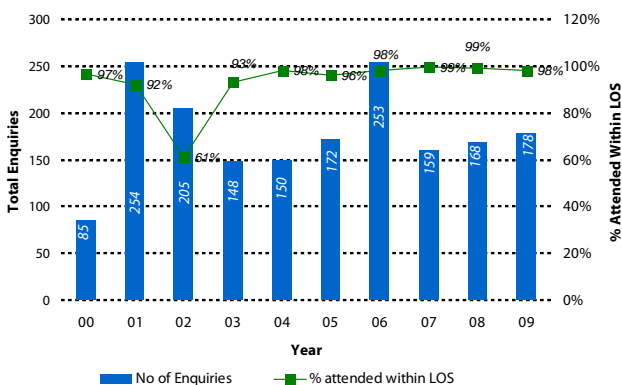
Emergency Cases and Response Time

We strive to make our customers satisfied. To achieve this, we have continuously monitored our level of services, in terms of response time and numbers of cases completed with our targets. To date, our level of services is at 98% in attending to sewer leakages/collapsed complaints and 96% in attending to sewer blockages complaints.

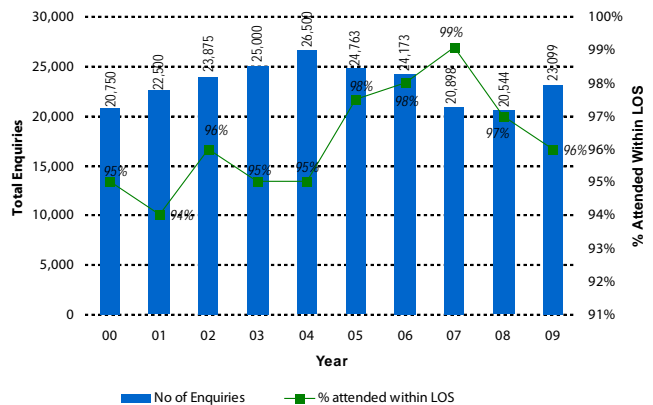


Overflow of sewage from manhole and major sewer blockage

Cases of Sewer Collapse Enquiries Attended within the Level of Service (LOS)



Public Blockages Enquiries Attended within Level of Service (LOS)



Our Sustainability Efforts

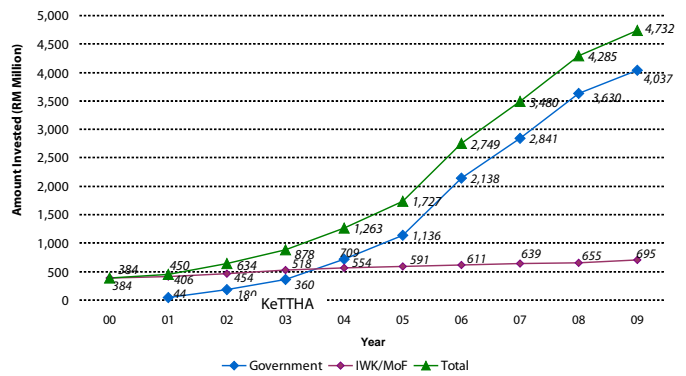
Capital Works and Refurbishment Programme

One of Indah Water's vital services is Capital Works and Refurbishment Programme. Capital works involves planning, design, and construction of new sewerage facilities under government funding. The refurbishment work on existing plants will enhance the effectiveness and efficiency of such plants in addition to improving their aesthetics. The process entails fairly-complex works ranging from civil engineering, aspects of safety, security, cleanliness and aesthetics, to the highly-complex mechanical and electrical serviceability of the plants.

Capital investment for construction of centralised sewage treatment plants, sludge treatment and disposal facilities, upgrading and refurbishment of plants and sewerage systems are required to minimise sewage impact on river water pollution and enable non-performing plants to meet increasingly stringent environmental standards. Since the take-over in 2001, the government has invested a total sum of RM 4.732 billion on sewerage investment, of which RM 4.037 billion was from

the Ministry of Energy, Green Technology and Water (KeTTHA) while the remaining RM 695 million was from Indah Water's /MOF financial resources. A total of 6,072 plants have been identified for refurbishment and upgrading and to-date a total of 4,323 plants (71%) have been refurbished (equivalent to RM 479 million).

Cumulative CAPEX Investment on Sewerage Development To- Date



Summary of Refurbishment Works Implemented by Indah Water as at December 2009

No	Category of Refurbishment Works	No. of Plants under Refurbishment Program	No. of Plants Refurbished	Cost of Refurbishment works (RM Million)	% of Plants Refurbished
1.	Category 2 & 5 (Safety, Security, Cleanliness, Aesthetics)	3,790	2,331	23.05	62%
2.	Category 2 to 5 (Safety, Security, Cleanliness, Aesthetics, M&E and Serviceability)	2,197	1,912	336.78	87%
3.	Major Treatment Performance (Total Upgrading / Replacement of Plants)	85	80	119.35	94%
Total		6,072	4,323	479.18	71%



Most treatment plants handed over to Indah Water were found to be totally neglected and posed safety and environment hazards.



A number of plants were found to be inaccessible for maintenance due to overgrown vegetation. This contributed to the non-performance of the treatment plants.

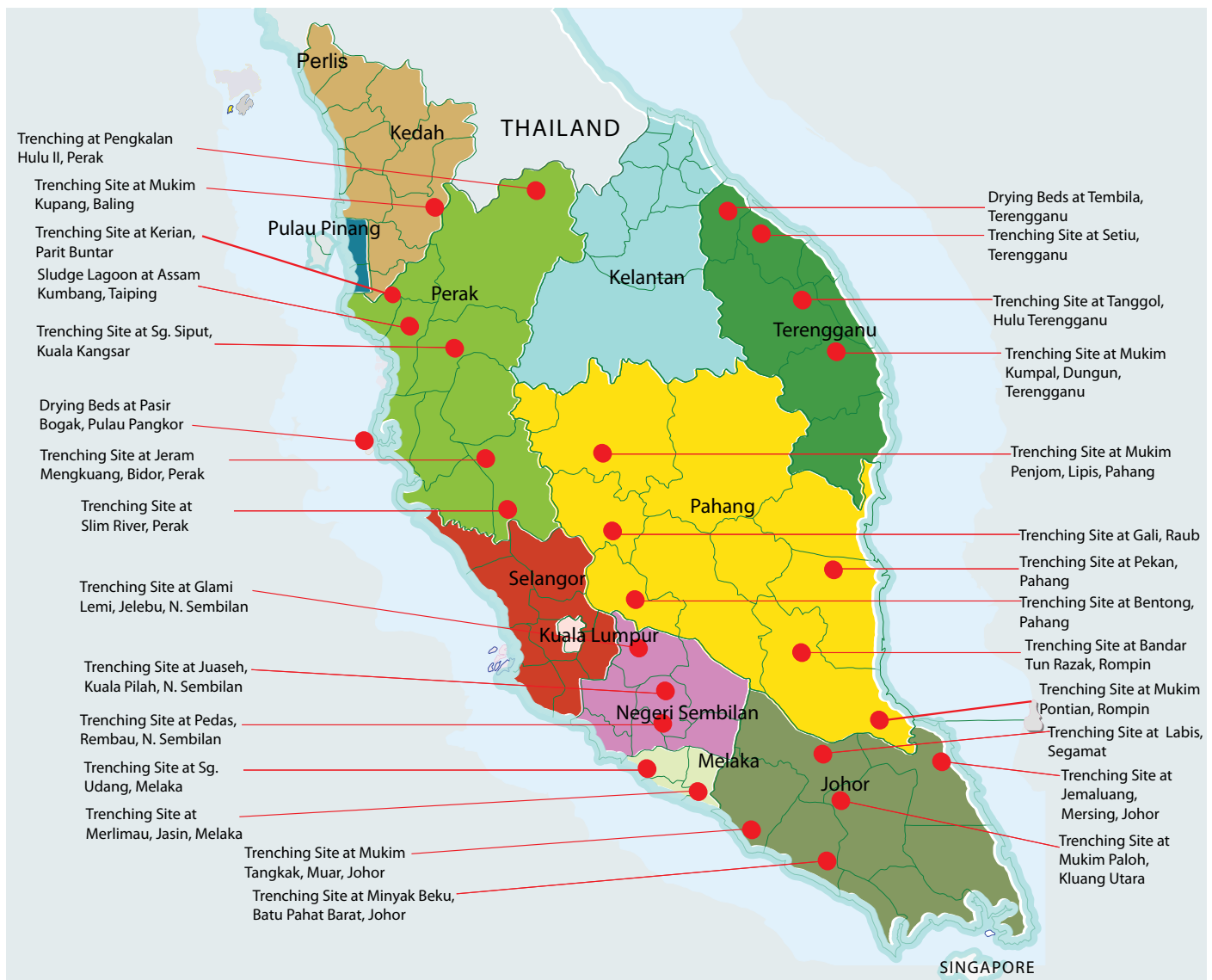
Sludge Handling and Management

All sewerage systems from individual septic tanks to the most sophisticated mechanical plants produce sludge. Sludge is an active organic compound which can rapidly turn septic if left untreated. Untreated sludge is a significant environmental and public health hazard. However, treated stabilised sludge is inert, stable and safe to use. It can be utilised to condition soil or as top soil in a landfill.

Malaysia is currently producing 6 million cubic meters of domestic sludge annually. As a result, many new sludge

treatment and disposal facilities will be needed to manage the large sludge volume. Indah Water has drawn up a sludge management strategy which is continuously updated and revised from time to time. Currently, there are 25 sludge disposal sites nationwide using the trenching method. Depending on the criticality and budget from the government, Indah Water has upgraded some of these trenching sites to mechanical sludge treatment facilities. There are a total of 18 Mechanical Dewatering Unit (MDU) and 6 dedicated Centralised Sludge Treatment Facilities (CSTF) nationwide.

Current Sludge Disposal Sites in Malaysia



Our Sustainability Efforts

Indah Water's Current Sludge Treatment & Disposal Facilities

*Trenching System
Completed 25 no.*

*Lagoon System
Completed 1 no.*

*Mechanical Dewatering Unit (MDU)
Completed 18 no.*



*Dedicated Sludge Drying Beds
Completed 3 no.*

*Integrated Sludge Reception Facility
Completed 8 no.*

Dedicated Centralised Sludge Treatment Facility (CSTF) Completed 6 no.

As an immediate solution for sludge handling and management in the country, Indah Water is proposing to use existing sludge treatment facility available at sewage treatment plants with excess capacity. For the short-term of between two to five years, Indah Water proposes the construction of sludge trenching and dedicated sludge drying beds, while the long-term strategy would be to construct sludge digestion and mechanical dewatering facilities.

In view of this, land is urgently required for the building of sludge holding and treatment facilities, so that the desludging of septic tanks and sewage treatment plants may be done on a large scale.

Environmentally-sound sludge management is the cornerstone of Malaysia's new approach to sewerage services. Effective and efficient sludge management will significantly contribute to providing an environmentally cleaner and safer Malaysia for future generations.

Climate Change Concern and Carbon Footprint

According to United Nations Development Programme (UNDP) Human Development Report, 2007/2008, greenhouse gases particularly those produced when generating electricity, are the main pollutants that cause climate change. Carbon footprint could play an important role as an indicator of carbon emissions.

We are aware of the significant impact of methane generated within our sewers, sludge storage and disposal activities. However, the amount of fugitive methane is relatively insignificant in the inert sewerlines and sludge storage facilities as we continue to stir the collected sludge in the storage tanks. Most of our digesters are relatively new and any collected methane is being flared to meet the regulatory requirement.

Indah Water is at the infant stage in terms of carbon footprint monitoring. Last year, we managed to compute our fuel consumption in 2007 and calculated total CO₂ generated from our company vehicles. In this year's report, we have widened our carbon footprint mapping to include CO₂ emission from energy consumption in the past 3 years.



Energy Consumption and Conservation

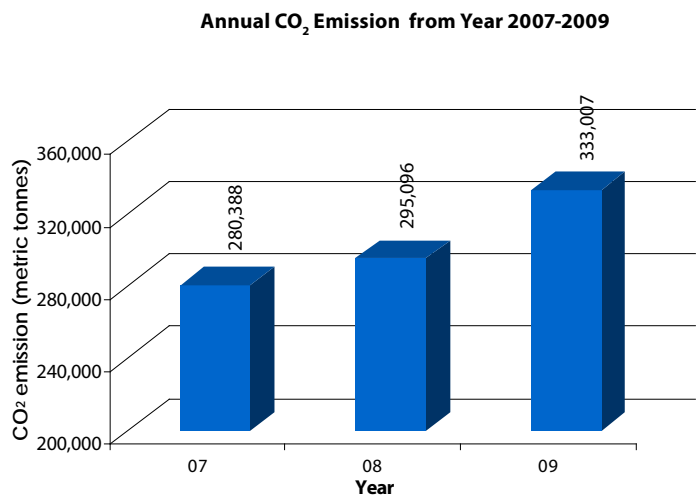
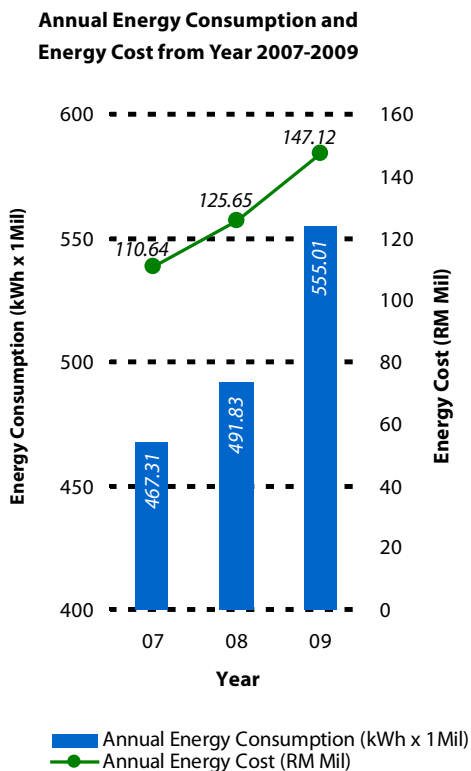
Over 4,000 STPs (77%) nationwide are mechanical treatment systems and these systems consume huge amount of energy. Since 2007, we have undertaken measures on optimisation of our regional STPs to conserve more energy. To-date, we have completed 10 projects and our efforts have been proven successful at the selected plants.

Our energy consumption is extremely high as we have to operate 5,221 STPs in 2008 and 5,428 STPs in 2009. In 2007, we spent RM110.64 million on electricity bills. Due to incremental numbers of plants (4% or 200) taken over annually, the total energy bill amount keeps on increasing in 2008 and 2009 to RM125.65 million and RM147.12 million respectively. We may have been successful in reducing power consumption in selected plants, but the total bills paid to-date kept on increasing because the number of mechanical plants has been increasing in tandem with development growth and stringent regulatory requirements.

As sewerage facilities increase annually, IndahWater also has had to increase our manpower, number of unit offices and required facilities to manage the incremental number of public sewerage

assets nationwide. Our energy consumption nationwide, inclusive all STPs and NPS, Unit Offices and headquarters has increased by 5.2% and 12.8% in 2008 and 2009 respectively. A large chunk of our operational cost is for payment of electricity bills. Energy tariff was increased in 2008 further increasing our operational cost. It is a tremendous challenge for us to balance our operational cost with huge budget cut from the government, whilst the sewerage tariff remains unchanged. Whilst Malaysia’s sewerage facilities are becoming a model to other developing countries, the sewerage tariff remains amongst the lowest in the world.

The overall annual CO₂ emission is calculated based on annual energy consumption. The trend of carbon emission increased annually in tandem with energy consumption trend. Although our efforts to reduce energy consumption and CO₂ emission has proven successful on selected plants, nevertheless, the overall conservation made was not able to reduce the overall total CO₂ emission produced because the rate of STP growth and increase in numbers of mechanical plants was higher in order to meet the current stringent regulatory requirement.



Our Sustainability Efforts

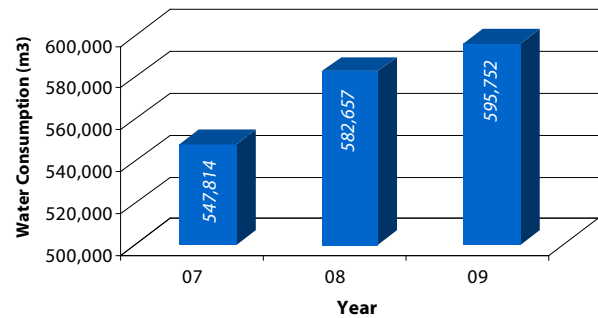
Water Consumption and Effluent Reuse

Although there are more than 5,000 STPs, our water consumption is low, being used only for washing and cleaning purposes. Since the numbers of STPs increased approximately on average by 4% annually, the water consumption correspondingly increased in 2008 by 6.4% due to the increase of sewerage assets, unit offices, manpower, etc. However, in 2009, we managed to reduce our incremental rate of water consumption to merely 2%. As part of water conservation effort, Indah Water implements recycling of STPs' effluent for cleaning and landscaping purposes.

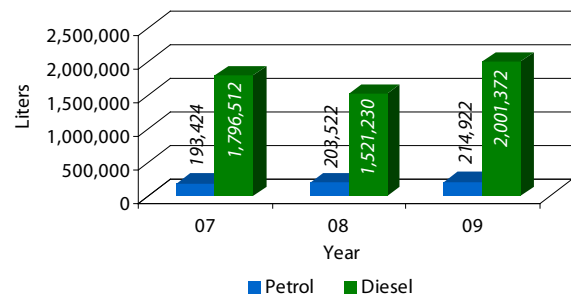
Fuel Consumption

As mentioned earlier, Water Services Industry Act 2006 (WSIA) (implementation on 1st January 2008) has transferred the responsibility to desludge CSTs from Indah Water's to owner/ occupiers' responsibilities. Subsequently, our 2008 fuel consumption was reduced by 13% due to the reduced number of desludging activities compared to 2007. Since the number of CSTs customers has been reduced tremendously, CO₂ emission has been reduced by 14%. However, due to incremental numbers of STPs, staff, vehicles, etc. in 2009, total amount of carbon emission increased marginally.

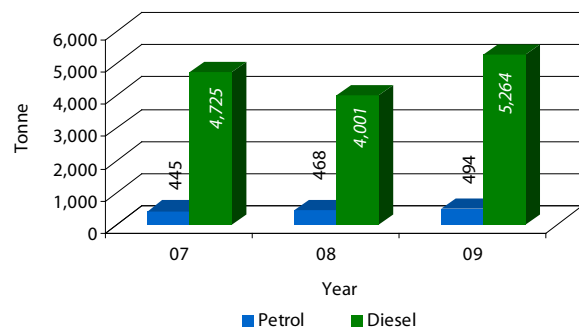
Water Consumption from Year 2007-2009



Annual Fuel Consumption 2007-2009



Annual CO₂ Emission Year 2007-2009





FROM LEFT, CLOCKWISE

Herds of storks were seen at our Pantai Lagoon STP Kuala Lumpur.

Bird photos: Stork and Egret (Source Wikipedia.org)

School of fishes are seen at oxidation ponds

Biodiversity Conservation

Our ponds and lagoons are becoming an inviting place for migrating birds to ‘stop by’ especially storks. It is believed that they are interested in the fish, insects, earth worms within our compound. The above photo is only one of the many selected STPs, especially oxidation ponds and aerated lagoons, which are preferred resting places for migratory birds such as storks and egrets. Egrets and herons are mostly white in colour and belong to species typically known as *Egretta* or *Ardea* family. Egrets are long legged with long necks. (Source: Wikipedia.org)

Fish is more synonyms with oxidation ponds, aerated lagoons and clarifiers. Mechanical plants or unit processes are not suitable for the fish due to inadequate oxygen.

Most of our oxidation ponds, facultative ponds and some clarifiers contain naturally grown fish that may have come into sewerage system during floods or heavy rain. The typical fish found in our ponds are commonly known as black tilapia or *tilapiine chichlid* tribe of the *chichlidae* family species. Tilapia inhabits a variety of fresh water habitats including shallow streams, ponds, rivers, lakes and estuaries. Most tilapias are omnivorous with a preference for aquatic vegetation and detritus (Source Wikipedia.org). They love to stay in our ponds since there are lots of foods available.

Our Sustainability Efforts

Continuous Improvement

Continuous improvement involves initiatives, effort and changes that are focused on increasing the effectiveness and/or efficiency of an organisation to fulfil its policy and objectives. It is not limited to quality initiatives, and some examples include improvement made in business strategy, operational activities, customer services, employees' and supplier relationships.

Indah Water believes in continuous improvement and thus, has taken the initiative to embark on Research and Development (R&D) in the late 90s and we obtained ISO accreditation in early 2000 in selected area of our business activities. We also made continuous efforts to improve operational efficiency and cost effective operations, whilst maintaining our service quality. We believe this will pave the way for us to become better in our operational activities and going into the future. We have managed to develop structured continuous improvement programmes / projects, internal and external R&D projects or in partnership with local and international stakeholders.

Accreditation

Indah Water analyses more than 28,000 samples of wastewater annually nationwide. Obtaining Skim Akreditasi Makmal Malaysia (SAMM) accreditation has further strengthen our

commitment in ensuring we produce quality wastewater data that complies with the existing Standard methods of water quality sampling, handling and analysis. Our Taiping laboratory service is certified under SAMM accreditation since 2007. We are in the process of obtaining SAMM accreditation for our central and southern laboratories.

As part of continuous improvement in our services, we have incorporated ISO certification to our services. To-date, we have ISO 9001:2008 for Certification procedures since 2003 and Planning Offices since 2005. Certification procedures involves dealing with multiple stakeholders, thus, proper processes and data management are critical to ensure the level of services, compliance and transparency are being adhered to.

Indah Water also has taken the initiative to obtain ISO 9001 certification for selected regional plants as these have more significant impact on the environment in view of the large areas they service. Bayan Baru regional treatment plant in Penang, which serves 200,000 population equivalent (PE) is the first plant to receive ISO 9001 certification in year 2008. In the same year, we managed to get ISO certification for our regional Bandar Tun Razak sewage treatment plant with 100,000PE capacity located in Kuala Lumpur.



Bandar Tun Razak STP, Kuala Lumpur



Indah Water's Regional Laboratory, Kuala Lumpur

"I strongly believe that Indah Water was born back in 1994 to serve the nation. Sanitation is a very important part of human life and is a pinnacle of a country's development. Indah Water has not really been given a chance to grow by the people. But with sheer determination of the country's leaders and the untiring hard work by Indah Water's management and employees - against all odds, we are where we are today. After 16 years of existence, we are ready to cross our domestic shores to every needy nation who is in need to learn from our mistakes and share our success story to lift the level of sanitation in all parts of the world. While we need to serve, we also need to create value, enrich lives and bring benefits to local communities for sustainability and, hence, there is a need for a balance between social, commercial and environmental needs."



Ir. Mohamed Haniffa Abd. Hamid
General Manager - Planning & Engineering Department

Continuous Improvement Programmes (CIP)

Indah Water initiated a 2 day workshop for the managerial and key personnel within Operation and Maintenance Department (OMD) in 2008 to inculcate a continuous improvement mindset. This workshop promoted the Plan Do Check Act (PDCA) cycle and relevant quality control (QC) tools by an external consultant.

The workshop conducted over 2 days in 2 sessions at the beginning of Aug 2008, involved 55 managers plus 7 in-house facilitators and appointed representatives from Planning and Engineering Department. Finance Department representatives were in attendance as observers. The workshop covered concepts and objectives of the PDCA cycle, the methodology of CIP using PDCA cycle and the relevant QC tools for data collection, analysis, presentation and brainstorming. It was

a hands-on workshop where the participants went through simulated step by step of PDCA methodology for pre-selected projects.

After the workshop, participants were asked to train their team and propose projects to be carried out under the CIP at Unit Office (UO) level. In the 2009, KPI was introduced for each UO to carry a project under the CIP. It is still at a learning phase, where the proposed projects were tabled and commented by relevant parties. The objective in the first year was to get the team to be familiar with the PDCA concept and the use of QC tools. Although there are only 18 Unit Offices, 23 CIP projects were proposed. Some Unit Offices whose members more were enthusiastic than others, proposed to carry out more than one project.

Some selected CIP projects completed and implemented nationwide as Standard Operating Procedures (SOP) are as follows;

To Reduce Number of Failures of Aeration Devices (Melaka Unit Office)

Root-cause Analysis was done on Aeration Devices Breakdown in Melaka Unit and the finding proposed resetting of 74 STPs surface aerators by 3 M&E service teams in 2008 and output finding observed in 2009. This CIP was able to reduce 20% of surface aeration device breakdown, reduced repeat breakdowns from 19 in 2008 to 0 in 2009 and saved 25% cost of repair works. At present, Standardisation on surface aeration resetting procedures have been established and implemented whilst training and checking are being done continuously.

Improvement to Plant Frequency Visit using Vehicle Tracking System (Taiping Unit Office)

Problem identification and fish bone analysis were done on Long Travelling Time for Plant Maintenance Frequency in Taiping Unit. The CIP involved 2 teams which proposed development of standard routes using GPS, and monitored travelling time and fuel cost. This CIP was able to save fuel cost, distance and travelling time by more than 13%, 6% and 5% respectively. At present, Standardisation on procedure for vehicle GPS route planning and monitoring have been established and implemented whilst training and checking are continuously being done.

Our Sustainability Efforts

Other proposed CIP projects were as follows;

- To improve Filing System and Management (Penang Unit Office)
- To Optimise Sewer Cleaning Works By Jetter/SCV (Skudai Unit Office)
- To Reduce Missing Manhole Cover Problem (Seremban Unit Office)
- Energy Optimisation Project For Bonus JBIC Plant (Kuala Lumpur Unit Office)
- To Reduce Public Complaints Caused By Pump Failures (Klang Unit Office)

To-date, a total of 21 CIP projects have been completed and presented. More data are being collected, checked and verified before being implemented on SOP and flow chart were established for other Unit Offices to adopt. Looking at the continuous improvement made so far, the company will continuously support the CIP projects in year 2010.

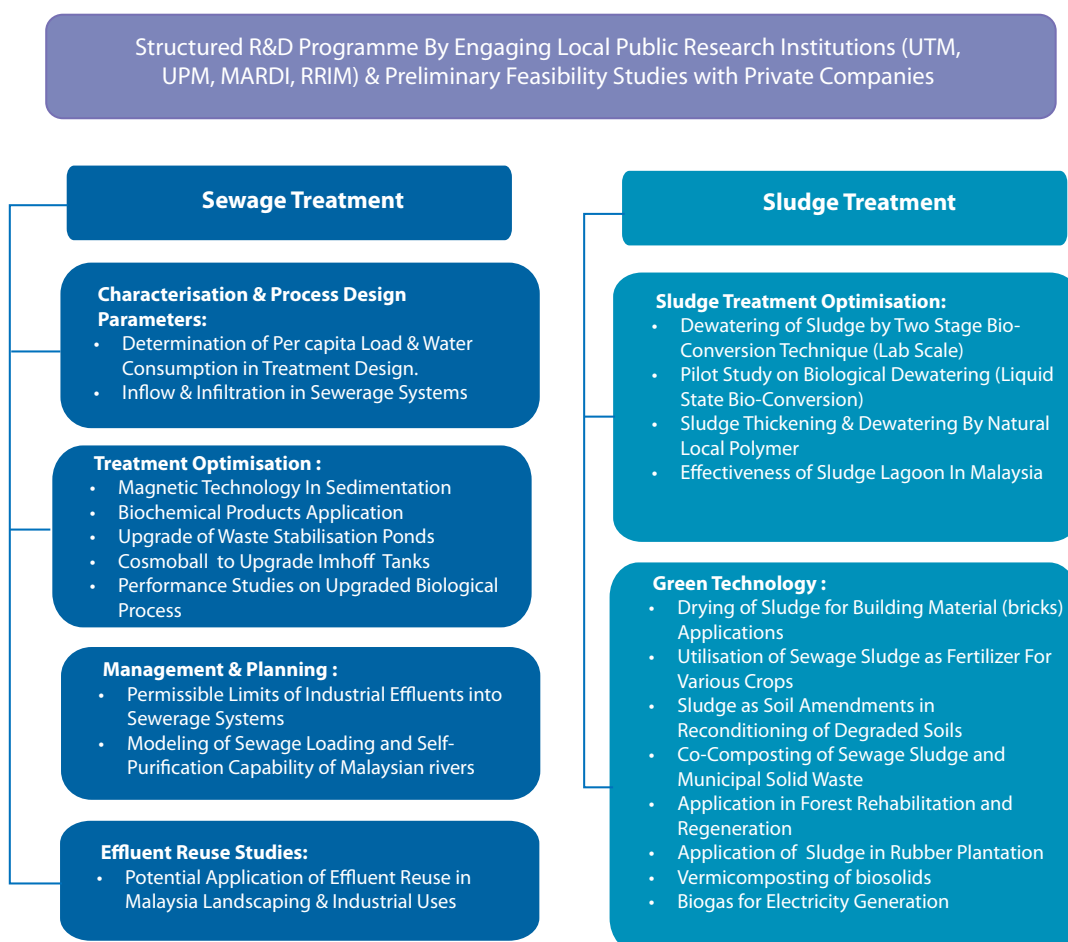
Research and Development (R&D) Programmes

Our R&D programme encompasses a spectrum of topics, ranging from sewage treatment, process optimisation to reuse of treated wastewater and biosolids applications. Our core programme is structured R&D with local Research Institutes. We also conduct in-house studies, support vendor led investigations and research institution/ academia's students research initiatives.

In-House Studies

Indah Water's R&D lab supports a range of in-house experiments and desktop studies to investigate sewerage related issues, treatment processes, trouble shooting capabilities and short term studies.

Areas of Research Undertaken by Indah Water to date



R&D Partnership

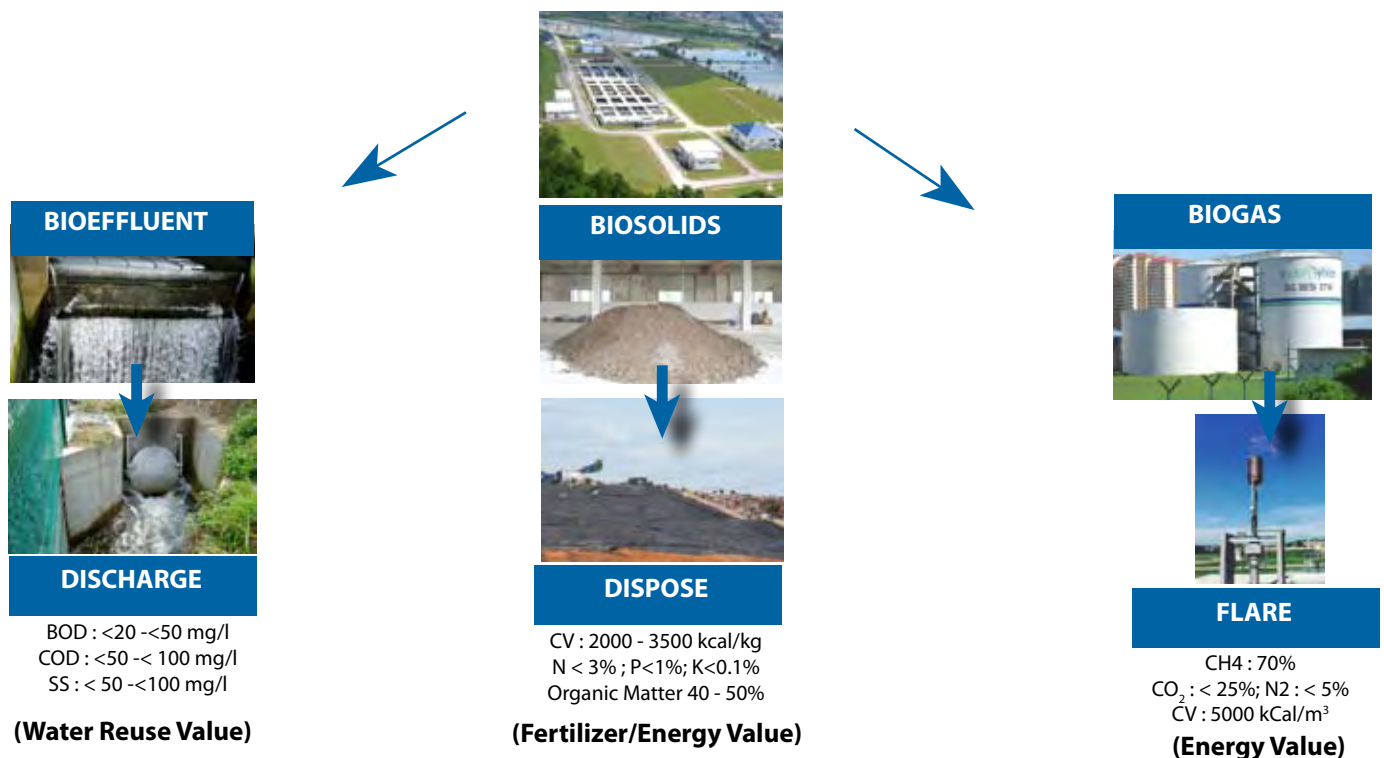
- Structured R&D with Local Research Institution**
 In 1998, Indah Water signed a Memorandum of Understanding (MOU) with Universiti Teknologi Malaysia (UTM) and Universiti Putra Malaysia (UPM) to carry out research on issues pertaining sewage and biosolids respectively.
- Vendor Led Investigations**
 Indah Water cooperates on pilot trials with local vendors who we mostly license to distribute foreign technology and products. These are short term trials of which performance indicator parameters are monitored to ascertain vendor’s claim.
- Institutions and Academia’s Student Research**
 Indah Water has always been supportive of local institutions and academia’s R&D work by allowing them access to our treatment facility to take wastewater, effluent and biosolid samples, etc.

Green Technology

Green technology is also known as environmental technology or clean technology. It is the application of environmental science to conserve the natural environment and resources, and to curb the negative impact on human development. Sustainable development is the core of environmental technologies. When applying sustainable development as a solution for environmental issues, the solutions need to be socially equitable, economically viable, and environmentally sound (Source: Wikipedia.org).

On 24th July 2004, YB Dato’ Sri Najib Tun Abdul Razak officiated the launch of the National Green Technology Policy at Pusat Tenaga Malaysia. The launching of Green Technology Policy marked the government’s firm determination to incorporate Green Technology principles in developing the nation’s economy. It is an imperative that national economic growth towards sustainable development goes in tandem with environmental development and conservation efforts. Under the National Green Technology Policy, Green Technology is defined as the development and application of products, equipment, and systems used to conserve the natural environment and resources, which reduces the negative impact of human activities.

Sewage Treatment By-products and its Fate
Sewage Treatment Plant



Our Sustainability Efforts

Indah Water has been involved with green technology since the late 90s, when we embarked on R&D works with local universities in potential reuse of sewage effluent and sludge (biosolids). At that time, reusing sewage effluent and biosolids had a stigma. The R&D findings have proven positive and successful. It was a challenge to change the public and regulators' mindset in the reuse of both these STP's by-products. As such, Indah Water very much welcomes the government's pledge and commitment in adopting Green Technology. Although huge amounts of capital need to be invested, Indah Water foresees that using green technology is an opportunity and the way forward for us to implement the utilisation of sustainable and environment friendly technology in the coming years.

As part of our commitment to the green technology policy, we have participated as one of the speakers in the Institute of

Engineers Malaysia (IEM) Green Workshop and Exhibition on Engineering; A Sustainable Economic Development Model for Malaysia. This workshop was conducted on 2nd and 3rd November 2009 at Holiday Villa, Subang Jaya. The workshop highlighted engineers' input and experience in infrastructure development towards green technology and sustainable development. The paper that we presented was on 'Transforming Wastewater Treatment via Green Technology Applications', where wastewater three by-products namely effluent, biosolids and biogas can be utilised as recycled water, fertilizer and energy value respectively.

We also have participated in the 6th National Utilities Summit 2009, which was held on 12th November 2009 at Sheraton Imperial Hotel, Kuala Lumpur. The paper presented was 'Application of Green Technology in the Sewerage Sector;

Effluent Reuse

Treated effluent from Sewage Treatment Plant



Effluent water reclamation for non-potable & industrial purposes



Treated Effluent application for Landscaping & Irrigation



Application of Continuous Submerged MF (CMF-S) followed by Reverse Osmosis (RO) membrane for waste water reclamation

Venturing Towards Long Term Sustainability'. Similarly our paper provided Malaysia's perspective in green technology application in the sewerage sector.

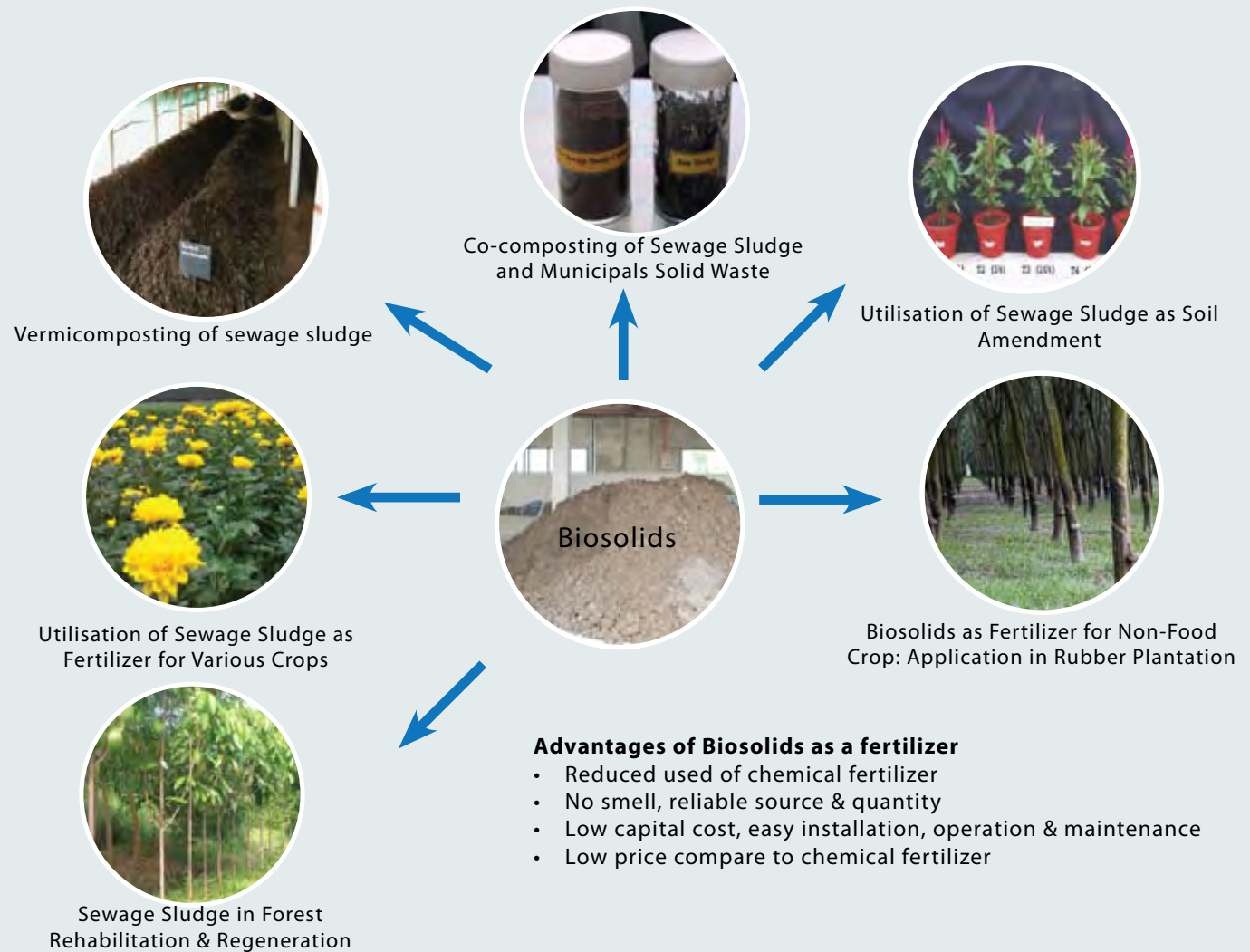
The potential of reuse for both treated sewage effluent and biosolids has been identified by completed R&D works by UTM and UPM respectively. Potential reuse of treated sewage effluent in the industrial sector and for landscaping purposes has proven to be very successful. Biosolids reuse potential as building materials, fertilizers, composting material and soil amendment in forest and mining land rehabilitation has also been proven to be possible.

Indah Water fully supports green technology and we look forward to collaborate with interested parties to develop field applications, pilot scale and finally commercialisation of

wastewater treatment's by-products. In 2009, Indah Water had achieved agreement with a third party to convert our biosolids to a green fertilizer. With the government's support, we hope this project will remove the misconception on biosolids as fertilizers by the public.

The government has emphasised green technology to address the environmental issues as part of the government's serious effort in mitigating the issues of climate change. Indah Water has taken the initiative to embrace green technology as it offers potential and opportunities in economic regeneration, innovation and wealth creation. Although the implementation of such projects involves huge amounts of money, Indah Water is proud to participate together with the relevant ministry and the local government agencies to make the Government's vision come true.

Biosolid Reuse



Our Sustainability Efforts

Green Technology Projects - Reuse of Effluent as Source of Water for Industry in the Federal Territory of Labuan

The Federal Territory of Labuan is currently facing acute shortage of water which has directly impacted businesses and quality of life on the island. Located off mainland Borneo, the island has limited sources of water for potable and industrial usage. Indah Water under the Ministry of Finance Inc. has initiated and worked closely with the Ministry of Energy, Green Technology and Water (KeTTHA) and Labuan Water Authority to provide portable water supply to selected industries. This project will make a green technology concept proposal a reality and this will also further pursue the way towards application of 'GREEN TECHNOLOGY' to solve economical and environmental issues as envisaged by the Federal Government. The project involves design, construction and commission of an effluent treatment plant and pump station complete with treated water pipeline to supply the treated water directly to the industry. The project is expected to be implemented in 2010.

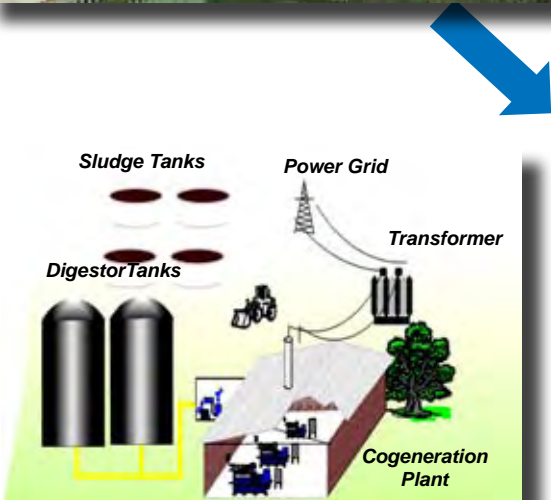
Research on Biogas Recycling

Indah Water admit ably is an infant in biogas recycling, research and reuse. This is due to the lack of good and workable digesters in the past. Now, we have at least two working digesters at Pantai and Bunus STPs. However, both STPs are still new and are not operating at the full design flow capacity. As such, we are not able to recycle the accumulated methane gas for energy production, due to a lack of sludge and subsequently, adequate quantity of methane generated. In 2009, Indah Water was still at the stage of studying and collecting data to determine how to optimise the use of the biogas facilities. We will endeavour to get better data to be in a position to compile a more complete technical findings in biogas applications in the near future.



Typical Biogas Characteristics

Parameter	Unit	Value
Carbon Dioxide (CO ₂)	% v/v	28.5
Oxygen (O ₂)	% v/v	0.815
Methane (CH ₄)	%v/v	63.75
Moisture Content	% v/v	3.945
Nitrogen (N ₂)	% v/v	2.99



Biogas Engine for power generation



“CSR to us involves continuous commitment and effort to make the public and other stakeholders appreciate sewage treatment and environmental protection as part of sustainable living”.

Amin Lin Abdullah
Assistant General Manager - Communication Department



Public Awareness Programme

We continue to provide public awareness campaigns through various channels of communications namely mass media, pamphlets, exhibitions, briefing/ dialogues session, and observation/ site tours.

We have found that environmental documentaries, news on television, advertorials in newspapers and radio are effective platforms to disseminate educational messages to the public.

Additional new edge information dissemination medium is through the internet. Our official website: www.iwk.com.my has been designed to be more users friendly, interactive and educational on the outlook of sewerage industry and technical details on sewerage systems. It has been a source of reference to many students of higher learning institutions and attracts enquiries from abroad particularly developing countries.

Environmental Awareness and Education Programs Carried Out from Year 2001 until Year 2009

Year	Special School Programme	Advertorials	Radio Advertisement / Talks	TV Advertisement / Appearances	Observation Tours (Sch/Uni/Gov / Company)	Observation Tours (Foreign)	Exhibitions	Community Events	Briefings/ Dialogue/ Public/ School/ PLKN
2001	30	24	6	8	53	1	15	16	8
2002	33	38	9	10	50	4	22	1	18
2003	67	0	0	0	61	6	19	1	27
2004	51	72	552	219	31	5	19	3	2
2005	25	0	0	12	43	1	29	0	13
2006	42	7	0	0	51	4	26	9	80
2007	1	0	0	0	39	2	73	17	91
2008	32	0	980	66	36	2	22	16	30
2009	23	0	2745	84	41	3	58	8	109
TOTAL	249	141	567	249	328	23	203	47	239

Our Sustainability Efforts

Sustainability Expenditure

We take our responsibility seriously in protecting the environment particularly in meeting regulatory standards in wastewater treatment. We continuously incorporate sustainability and environmental management in our daily activities, involving planning, design, implementation, testing, commissioning, certifying, operation and maintenance, audit, and health and safety.

We have continuously invested in environmental and sustainability management activities and firmly believe that through these investments somehow it will bring changes to the sewerage development, the public perception, sewerage awareness and impact in Malaysia. The following are our environmental and sustainability expenditure from year 2005 until 2009:

Indah Water Activities	2005	2006	2007	2008	2009
1. Operation Expenditure - Operation & Maintenance	243.65	294.68	350.09	407.50	434.52
- Planning & Engineering (R&D, Design, Certification etc.)	13.04	11.18	16.93	18.28	18.18
- Project management (Capital Works & Refurbishment)	6.17	5.68	6.76	6.87	6.97
- Health & Safety	0.31	0.29	0.43	2.40	3.99
- Corporate Social Responsibilities (CSR)	5.42	5.36	4.67	4.72	3.01
2. Investment in Sewerage Related Assets (including vehicles)	29.17	25.17	28.71	44.15	39.53
Total (RM Million)	297.76	342.36	407.59	483.92	506.20

Our incremental environmental cost invested annually clearly shows how much passion and effort we have put in towards environmental protection and sustainable development. Our persistence through the years has made the nation proud, when Indah Water was picked to receive recognition by the Environmental Cooperation-Asia (ECO-Asia) to provide regional capacity building and be part of Water Links activities under them.

ECO-Asia established the Water Links network in partnership with the Asian Development Bank and the International Water Association to develop and support water operator's partnerships. Indah Water has been involved with several twinning water operator partnership, information sharing and interactive networking.

A man in a white shirt and glasses, a young girl in a blue school uniform, and another child are looking at a model of a wastewater treatment plant. The model shows several circular tanks and buildings. The background is a blurred indoor setting with other people.

Corporate Social Responsibilities

"As the leading sewerage services company in Malaysia, Indah Water has the potential to have a significant impact on communities. We believe that whatever sustainability efforts and CSR activities which are good for business must be also good for the community and the environment. Indah Water is making continuous efforts to educate Malaysians on the importance of a modern and efficient sewerage system and service for the country."

Corporate Social Responsibilities

According to Bursa Framework for public listed companies, Corporate Social Responsibilities (CSR) is defined as an open and transparent business practices that are based on ethical values and respect for the community, employees, the environment, shareholders and other stakeholders. It is designed to deliver sustainable value to society at large. Even though Indah Water is not a public listed company, as a responsible company that serves the public, we believe that whatever sustainability effort and CSR activities that are good for business must be also good for the community and the environment. We live in the same world, thus, we do our part in our quest for sustainable sewerage services and business practices and hope it will benefit all our stakeholders within our operational areas for sustainable living.

Our company has started early in CSR activities particularly to address the objection from the public on the privatisation of sewerage services in 1994. We have spent millions in our effort to educate the public and stakeholders on sewerage conveyance, treatment and services. There was no short and simple solutions in our quest to get the public and stakeholders' acceptance of our services. Over time, we have learned valuable lessons and matured in our public outreach and CSR activities. Our CSR efforts are ongoing activities that we plan and carry out annually. Our CSR efforts have proven to be worthwhile, when our customers now recognise and appreciate our services as they are now more willing to pay their sewerage bills. To-date, we are proud that ECO-Asia has appointed Indah Water as the advisor/twinning partner to our counterparts and neighbouring countries for our CSR activities and public outreach programs on educating the public and stakeholders for sewerage services and environmental awareness.

Special School Programme and Observation Tours for Next Generation Development

As part of Indah Water continuous effort to educate Malaysians on the importance of a modern and efficient sewerage system and service for the country, the company has embarked on an exclusive educational program. This program was started in June 2001 and has the support and approval of the Ministry of Education and all State Education Departments. It covers students in Forms 4, 5 and 6 in all secondary schools. To-date, over 3,000 students from more than 30 secondary schools in Wilayah Persekutuan and Selangor have benefited from this program.

This special program addresses the following key topics: -

- Development of Sewerage Systems in the country
- Importance and benefits of a modern and an efficient sewerage system
- Joint efforts of all Malaysians, the Government and Indah Water to protect and preserve the cleanliness of the environment

This half day program includes a video presentation, briefing, question and answer session and a mini exhibition on the country's sewerage service and system. We have published our contact numbers, address and e-mail in our website for any interested schools to participate in the above programmes.



Indah Water actively participated in nurturing environmental awareness and sewerage education to the next generation and the public in general. This year, we have actively participated in 20 National Services (PLKN) programs and 6 Mara Science Colleges (MRSM) briefings to educate the next generation on sewerage services. Amongst the activities involved in these programs were briefing on sewerage treatment, showing educational video and organising quiz contests.

This year, we have also conducted 40 observation tours, where we provide briefing on our sewerage treatment plant processes and a 'walk-around' the plants for various age groups including high school students, college students and undergraduates.

Indah Water remains steadfast in educating the future generation on sewerage services and environmental protection. In 2008, we spent over RM12,000 on our school programmes to educate the younger generation. This effort is important to us, even in the economic downturn of 2009, when we spent more than RM10,000 on this programme.



Sewerage education and environmental awareness talk to PLKN trainees



Observation tours and briefing on sewerage treatment process for PLKN trainees



Observation tours and briefing on sewerage treatment process for Nurses of Assunta Hospital



Group photo of KUITTHO students after completion of observation tours and briefing on sewerage treatment process

Corporate Social Responsibilities

Community Programmes / Events

In year 2008 and 2009, we conducted 16 and 8 community events respectively to promote environmental and sewerage knowledge via community engagement. In these exhibitions and

community events, we incorporated exhibition materials set-up, complaints and payment counter, showed videos, organised colouring contest, 'rakyat' games, quiz and karaoke contest.



Indah Water organised 'Hari Bersama Pelanggan' at Star Parade Alor Setar



Exhibition and model display during Water Engineer Exhibition for Peninsular Malaysia in Melaka on 21-23 Dec 2009



Indah Water's Customers Day at Jusco, Skudai, Johor



Exhibits and posters on sanitation and sewerage management displayed to the public at an exhibition in Star Parade, Alor Setar

"We held this competition to create awareness of the sewerage services and charges. We chose fishing because as a national sewerage company we are responsible for preserving the water resources in the country".

Amin Lin Abdullah - Head of Communications, Indah Water

Fishing Competition to Promote Sewerage Services and Environmental Awareness

Indah Water has conducted numerous road-shows to promote sewerage services and environmental awareness. One of the more popular events was our fishing competitions. We had organised several fishing competitions, one of which was in Nov 2007 at Kolam Bukit Ekspo Universiti Putra Malaysia (UPM). In this program, Indah Water together with Sinar FM, a local radio station, held a fishing competition as a charity programme in aid of the Cancer Link Foundation. What better way to educate the public on sewerage services and clean environment than to hold a fishing competition.

The charity competition attracted more than 100 anglers, and every fish caught by the participants carried a value of RM10. A total of 134 fish were caught at the competition, and Indah Water had channelled RM1,340 to the Cancer Link Foundation. The first three winners, based on the three heaviest fish caught, received RM1,000, RM600 and RM400 respectively.

Another fishing event was conducted at Cyberjaya on 9th Dec 2007. In this competition, Mohd Fakri Ghazali not only landed hefty catch but also took home a handsome cash prize of RM15,000. Mohd Fakri, 26, a government servant from Kedah, won the grand prize for landing a 7.28 kg Pacu fish after a

25-minute struggle during the Indah Water Carnival held at the Cyberjaya Lake Garden. He had thrown in his line the night before. This Sunday carnival, the second in its series, had met the target of attracting 2,500 anglers and other visitors from throughout Malaysia. Apart from the fishing competition, other events in the carnival included karaoke, cooking and colouring competitions. The colouring competition alone attracted the participation of some 100 children.

Among other objectives of holding such carnival was to inform the public of Indah Water's role in keeping clean the country's waters and safeguarding public health so that they can continue to live in a clean environment that is conducive to healthy living. Indah Water organised get-to-ground events such as this in addition to the *Mesra Bersama Indah Water* (get close to Indah Water), which were organised monthly in shopping complexes such as in Batu Pahat, Alor Setar, Ipoh, and Kuantan.

With such programmes, Indah Water is confident that its customers would become more conscious of the importance of maintaining the cleanliness of the environment, while honouring their obligation in paying their sewerage bills promptly.



Fishing competition and lucky draw give away during Indah Water carnival and open day

Corporate Social Responsibilities

Seminar on Environmental Management Program –Sewage Treatment Plant Maintenance Module for Hotel Owners in Melaka

Indah Water conducted training in technical sewage treatment plant maintenance on 17th December 2008. This seminar was held as part of the 'Minggu Alam Sekitar Malaysia (MASM)' campaign and environmental awareness seminar in Malacca. Indah Water was invited by the State DOE to participate together with SPAN, Majlis Bandaraya Melaka Bersejarah (MBMB), and the State DOE. The program was conducted at Air Keroh Country Resort Hotel with more than 100 participants who were mostly from the Melaka Hotels Organisation.

The objective of the seminar was to protect, reduce and control environmental pollution particularly point sources from hotels along Malacca rivers. It was also to create awareness of Malacca State's vision to improve water quality in Sg. Melaka and importance of proper service and maintenance of sewage treatment plants by the hotels owners. The seminar also was to promote and improve technological understanding and performance monitoring as part of pollution control, early detection and preventive maintenance of sewage treatment plants.



Photo token of appreciation from DOE to Indah Water Unit Office in Melaka

Our Communities

We not only treat wastewater, but we also do as much as we can in CSR activities to advertise the need for wastewater treatment to preserve the environment through the mass media, web page and direct communication with the public via 'Hari Bersama Pelanggan'. We also take the initiative to clean surrounding areas around our offices and at the same time get to know the neighbourhood community via 'Gotong Royong' activities.



Above photos are 'Gotong Royong' at the surrounding area of Indah Water's Skudai Unit Office

Charitable and Sponsorship Initiatives

Indah Water has carried out numerous charity and sponsorship initiatives over the years, because of the passion we have for giving back to the community. Most of our sponsorship initiatives relates to social and educational activities such as university conferences, charity dinners, volunteers, etc.

We believe in contributing to the common good through charity and sponsorship, as this can create greater awareness and elevate our overall impact, which are so much needed in these difficult economic times.

As part our support to non-governmental organisation (NGO) and charitable activities, Indah Water has donated over RM RM 261,000 in 2008. Even with cost cutting as a result of the economic crisis, Indah Water continued to pursue this, making donations to a total value of RM 178,000 in 2009. We also conducted a charity drive for our own staff to support medical bills for adik Nur Amalina's heart surgery. Our effort was proven worthwhile when we managed to put smiles on the faces of adik Nur Amalina and her parents.



Indah Water joint blood donation sponsored by Department of Occupational, Safety & Health, Ministry of Human Resources



Charity drive for adik Nur Amalina, daughter of Indah Water Staff

Charity Desludging

Indah Water understands the implication of neglected septic tanks and treatment plants as the potential pollution sources. We do what we can to reduce pollution sources within our means. As such, as part of our initiative to keep the environment clean and reduce risk of contamination from overloading of septic tanks, Indah Water conducts desludging for free for religious centres such as mosques, churches, temples etc.



Thank you letter from the church for conducting free desludging services for their septic tanks

Corporate Social Responsibilities

Career Fair Programmes

The global economic crisis started in 2007 and now in 2009, we are entering a new phase amid signs of a return to positive growth. Unemployment in our country is likely to remain high and much is still needed to be done to ensure recovery. As

a concerned organisation, we have participated in several career fairs hosted by several organisations. We believe our participation helped graduates to obtain jobs that they wanted within our company during this difficult time.

DATE	CAREER FAIR	ORGANISER
28 Feb 08 – 1 Mar 08	Career Fair 08 (KLCC)	JobsDb.com
26 Mar 08	Karnival Pekerjaan (Nilai)	Jabatan Tenaga Kerja N. Sembilan
21 Jun 08 – 22 Jun 08	Karnival Pekerjaan (Seremban Parade)	Jabatan Tenaga Kerja N. Sembilan
2 Aug 08 – 3 Aug 08	Career Path 2008 (UTM Skudai)	IEM UTM Student Chapter
15 May 09 – 17 May 09	National Career & Entrepreneurship Carnival 2009 (PWTC)	My Events Sdn Bhd

Graduate Employment Scheme

Getting a good job is hard and is doubly difficult for fresh graduates who lack working experience. With the job market even more competitive now than it was in the past, we expect job search to be even more difficult for fresh graduates.

As a sewerage company under the MOF, we always support the government's initiatives to reduce unemployment and educate the new graduates through temporary 6 months on-the-job training particularly under the Graduate Employability Management Scheme (GEMS). We have accepted 61 GEMS graduates since July 2009. As our new staff, they are posted to various departments and unit offices nationwide. Depending on vacancies and job performance, we have absorbed nearly 10 of these GEMS graduate as permanent staff.

Links with Academia

In an ever-changing and increasingly competitive environment, tertiary education institutions are continuously looking at methods to improve their teaching and attract students to their courses. Students likewise are becoming more selective when choosing an institution at which to study and are more focused on the longer-term employability offered by various courses.

Indah Water has continuously provided the means for research on wastewater and sludge treatment/development either by attachment to our relevant department as industrial trainees or conducting research by taking samples of wastewater and sludge. This research was conducted among the students on completion of industrial training has produced positive results, with students' feeling that their interpersonal skills had been greatly enhanced and that hands-on working experience provided them with a competitive advantage when entering the job market.



In May 2009 ECO-Asia and Indah Water co-hosted a regional training and workshop on septage management - Opening keynotes from Indah Water, former CEO



Delegations of the Regional Septage Management Workshop held in Kuala Lumpur in May 2009

International Partnership in Capacity Building and Sewerage Management

Understanding the importance of holistic sewerage management and significant impact of proper sanitation in a nation, Indah Water embarked on information sharing on wastewater management with other neighbouring countries under United States Agency for International Development (USAID) in 2003. USAID under ECO-Asia then developed a WaterLinks program and invited Indah Water to become the regional trainer or mentor in wastewater management in Asia.

ECO-Asia is a regional programme of the United States Agency for International Development (USAID) that implements regional activities in: clean development and climate, natural resources and biodiversity conservation, clean water and sanitation, environmental governance and tsunami response and reconstruction. Under ECO-Asia, USAID develops a combination of national and regional activities in partnership with Asian governments, cities, and other organisations to promote regional dialogues in sharing and replicating innovations across Asia (source: //usaid.eco-asio.org)

ECO-Asia has established Water Links programs which involves regional capacity building, water operator twinning partnership and information sharing and networking. In 2008, Indah Water was proud when ECO-Asia acknowledged our effort and appointed us to be their wastewater/sanitation management partner for capacity building in Asia region. To-date, we have conducted more than 10 international capacity buildings and mentoring programmes.

Corporate Social Responsibilities

From Right, Clockwise :

1. *Observation tours and briefing of Lot 130, Klang Centralised Sludge Treatment Facility process to WaterLinks-IWK Regional Septage Management Workshop delegates*
2. *Briefing on R&D laboratory facilities to Vietnamese delegates*
3. *Briefing on treatment plant processes and monitoring via SCADA System to WaterLinks-IWK Regional Septage Management workshop delegates*



Capacity Building at Bai Chay Treatment Plant, Halong, Vietnam

USAID's Environmental Cooperation-Asia (ECO-Asia) program initiated a partnership between Indah Water Konsortium and operators of the Bai Chay treatment plant, Halong, Vietnam. Indah Water, as the mentor partner, contributed in the training of Bai Chay treatment plant operators. We conducted hands on training using a step-by-step approach for optimising plant operations. It was a rewarding and fulfilling experience for both parties which successfully reduced further contamination of the Bai Chay wastewater treatment plant.

Regional Septage Management Workshop

ECO-ASIA and Indah Water co-hosted a regional workshop on septage management in May 2009. The objective was to help cities in South and South East Asia develop septage management programs which addresses onsite sanitation. A total 28 delegates from India, Indonesia, Thailand, Vietnam and the Philippines attended this workshop. Indah Water, as the model operator, shared best practices and know-how in all aspects of septage management from policy requirements, development planning and controls, financial support, communication programmes to operations and technical know-how for scheduled desludging services as well as treatment and disposal of septage. ECO-Asia, as workshop facilitator, encouraged participants to develop action plans to improve septage management in their respective countries.

From Right, Clockwise :

1. MoU signing ceremony between PDAM Tirtanadi, Medan and Indah Water, Malaysia
2. Training for PDAM Tirtanadi, Medan delegates at Indah Water facilities
3. Launching of Promotional Campaign in Medan, Indonesia
4. Tour to wastewater treatment plant at Manila



Twining Partnership with PDAM-Tirtanadi of Medan

ECO-ASIA facilitated a twinning partnership between PDAM-Tirtanadi of Medan, Indonesia and Indah Water Konsortium of Malaysia. The MOU between PDAM Tirtanadi and Indah Water was signed on 5th December 2008. The main objective was to improve sanitation services by increasing demand and connection of sewerage facilities in Medan. Indah Water’s key role as the mentor partner was to review the Medan Masterplan and provide training and sharing of expertise in sewerage development planning and controls. The program used the WATSAN 10-Step Promotional Toolkit for PDAM Tirtanadi. By adopting this Toolkit and supported by other communication programmes, PDAM Tirtanadi was able to improve on their public outreach and awareness programme. A Promotional Campaign was launched on 17th August 2009 and PDAM Tirtanadi was optimistic of obtaining at least 300 commitments to connect to their sewerage facilities through this Campaign.

Workshop on Design, Operation and Maintenance of Wastewater Technologies under USAID ECO-Asia at Makati, Philippines

Indah Water participated in presenting papers in Workshop on Design, Operation and Maintenance of Appropriate Wastewater Treatment Technologies conducted under the USAID ECO-Asia program in Makati Philippines on 24th April to 26th April 2007. Other co-organisers included the Department of Environment and Natural Resources (DENR), the Department of Public Works and Highways (DPWH) and USAID Local Initiative for Affordable Wastewater Treatment (LINAW). This program focused on wastewater from public market and domestic, septage management, sanitation policy formulation and public awareness.

The workshop’s objectives were specifically intended to increase the knowledge of appropriate technologies amongst engineers and local government officials and to enhance knowledge on proper operations and maintenance of wastewater treatment plants via paper presentations, exchange of technical information and shared experiences. The workshop also encouraged academicians and industry associations to include appropriate technology options in their courses. Also included were site visits to Muntinlupa Public Wet Market, Valenzuela –DEWATS system for slaughterhouse, Manila Water Septage Treatment Facility and Manila Sewage Lagoon Systems.



Zainudin Mat Salleh

“We have established interactive online e-Procurement for suppliers and contractors in year 2008 to ensure open, competitive, responsive and transparent business processes”.

Zainudin Mat Salleh
General Manager - Procurement Department

“Our task is to provide legal services in a timely, effective, and on an efficient basis and to maintain the highest standards of professional integrity by ensuring compliance to Malaysian laws and the legal system”.

Zaheeda Mohamad Ariff
Assistant General Manager - Legal Department



Zaheeda Mohamad Ariff

“ We conduct regular audits to all departments to ensure compliance with company policies and procedures, improve processes and controls, and promote transparency and good corporate governance in our business practices”.

Chua Tiong Leong
Assistant General Manager - Internal Audit



Chua Tiong Leong

“We have refurbished and upgraded more than four thousand old plants to improve environmental sustainability, treatment performance and efficiency, and to meet stringent regulatory standards. This effort will greatly reduce site works or disturbance to neighborhood, and the need to acquire further land to build new wastewater treatment plants”.

Yam Soong Yeong
General Manager - Capital Works and Refurbishment Department



Ir. Yam Soong Yeong

“ In Indah Water, we deploy technology innovatively and effectively as a key enabler in all aspects of our business operations. We strive to make information and knowledge available online to all as and when required in a secure and timely manner”.

Ravindran Karupiah
General Manager - Information Technology Department



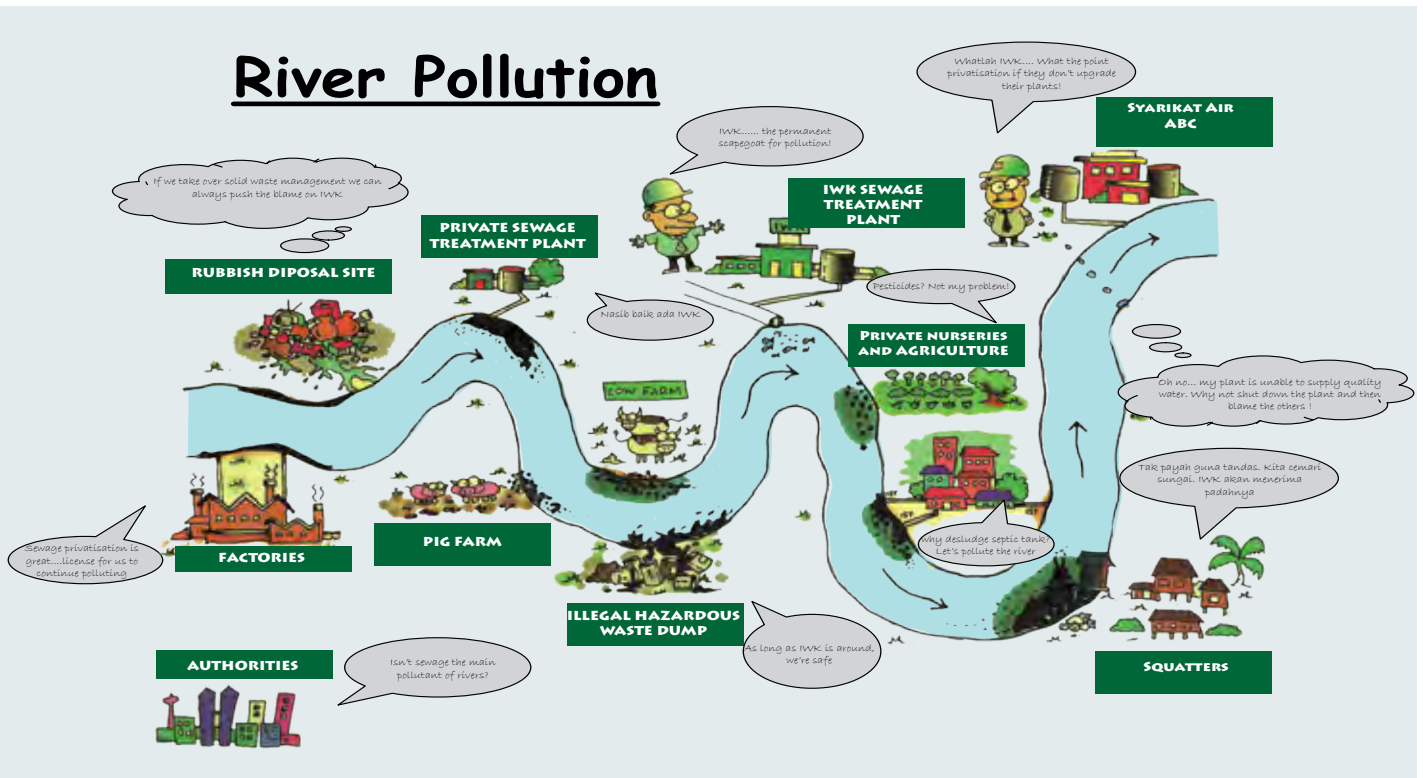
Ravindran Karupiah



Our Risk Management and Challenges

“Risk is generally described as a situation which may lead to negative consequences. Indah Water is committed to managing and minimising risks in order to protect our customer and ourselves. In engineering definition, risk is proportionate to both expected losses incurred by an event and the probability of this event occurring. We are constantly raising awareness and inculcating attitudes and behaviours to mitigate risk”.

Our Risk Management and Challenges



'Risk' is generally described as a situation which may lead to negative consequences. Another definition of risk is an situation or circumstance which can be mitigated (a potential problem which has to be or can be fixed). Risk also may be considered as indicator of threat depending on situational, vulnerability and uncertainty. In engineering definition, risk is proportionate to both expected losses incurred by an event and the probability of this event taking place [source: Wikipedia.org].

Sewerage management involves internal and external factors, including budget allocation which contributes to overall performance of Indah Water's ability to meet compliance requirements. Every decision made in addressing these factors and RISks involved normally ties back to financial support from the government.

Indah Water, as the operator of sewage treatment plants, has to abide by all requirements of the Water Services Industry Act 655 (WSIA), Environmental Quality Act, 1974 (EQA) and Sewage and Industrial Effluent Regulations, 1979. However, there are multiple and accumulated risks involved in accepting and maintaining the STPs handed over from third parties. In addition to this, there are also multiple external factors involved that makes Indah Water susceptible to huge RISks particularly in maintaining STP compliance.

"Indah Water faces great challenges and high risk associated with operating inherited sewerage assets, varying incoming sewage characteristics, illegal discharge and uncontrollable external factors, with tight financial constraints"



Ir. Abdul Kadir Mohd Din
 Chief Executive Officer
 Indah Water Konsortium Sdn Bhd

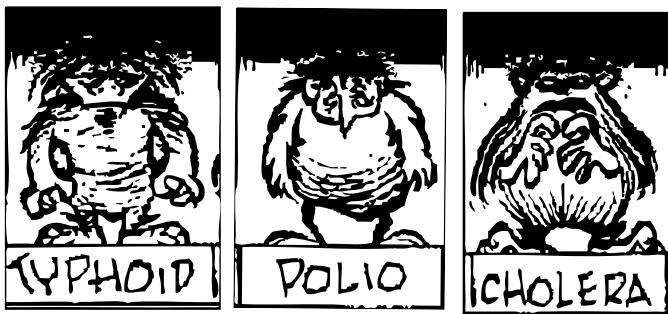
River: "I'm sick and I'm dying"

River water conservation for our future generation

Sewage Treatment Plant



Risk to Health



Water is the major means by which bacteria, viruses, parasites are transported. History has shown that engineering water supply and wastewater management have successfully curbed water borne diseases. Without proper sanitation and sewerage management, the public are susceptible to health risks from water borne diseases such as typhoid, polio, hepatitis, cholera, dysentery, etc. Sewage treatment manages to reduce this risk by elimination or the reduction of harmful pathogen to protect public health. Indah Water is vigilant in providing our services to continuously protect public health.

Risk to Environment

Improper sanitation system within urban and rural areas simply means indiscriminate dumping and direct discharge of raw sewage to the environment. This practice in the long run will eventually turn the rivers into 'temporary open river type sewage dumping sites', which are not fit for human consumption or recreation. These 'rivers type of sewage dumping sites' and its surrounding areas will lose their natural foliage and even fish will die. These improper practices are a threat to public health, natural water resources and as well as the environment.

The minimisation of these risks is critical to protect the environment particularly at the river downstream, where the river water quality and socio-economic activities may be directly or indirectly affected. Wastewater treatment simply treats wastewater to improve its water quality to meet regulatory standards. In addition, it improves the environment, living conditions, and possibly the livelihood of a particular community and of the country in general. We, at Indah Water, are proud to provide our services which are directly involved in reducing these risks, 'making good' and improving the quality of the water resources and the environment.

Our Risk Management and Challenges

Risk at Sewage Treatment Plant

Risk of Non-Compliance

There are many factors attributable to compliance or non-compliance of a particular sewage treatment plant. Some factors are within Indah Water's control (such as equipment operations and maintenance, condition of equipments, etc.) whilst other external factors (such as extreme weather conditions, power interruptions, theft, vandalism, illegal industrial discharge, etc.) are not within Indah Water's control. However, risk management within our control are also dependant on financial and workforce constraints.

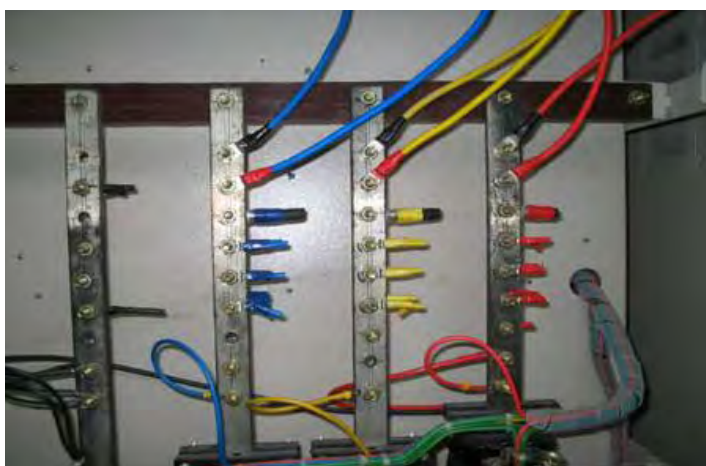
Sewage plants need to be attended to on a daily basis so that any malfunction of the treatment processes and/or equipment can be attended to immediately. Ideally, treatment plants should be manned on a full time basis so that process control can be better managed and potential problem are identified at early stage so that corrective action can be taken immediately. At present, due to large number of plants and funding constraints, maintenance frequency is scheduled are based on plant size and type of plants. Daily maintenance visits to all plants would increase annual operational costs. The risks still remain after an Indah Water team completes their plant visitation.

Risk of Theft and Vandalism

Due to budget constraints, almost all Indah Water plants which are not manned are exposed to risk of theft and vandalism. We are unable to control irresponsible persons who like to profit from unattended plants from committing theft.

Currently, 77% of STPs operated and maintained by Indah Water are mechanised plants (with pumps, aeration devices, and control panels). These plants are highly susceptible to theft and vandalism due to the high scrap value of the equipment and materials.

When our equipment are stolen or vandalised, especially control panels and aeration devices, these plant would experience total breakdown leading to environmental pollution and odour complaints. It takes 10 - 30 days to replace lost or vandalised equipment and to get our plants up and running. During this period, STPs are prone to non-compliance. Due to the high cost of providing security services to all mechanised plants, we are now selecting only large STPs and those in critical areas (i.e. Standard A water catchment area) to be provided with security guards.



Stolen wire from control panel



Stolen valve at drying bed



Suspected illegal discharge of die/paint



Illegal industrial detergent discharge into STP

Risk of Illegal Discharge

We are unable to control bad habits of users or irresponsible persons from disposing of chemical, industrial waste, fats, oil, grease into the sewerage systems. Garbage/ oil/ industrial waste/ paint/ grease, etc. may easily be disposed into the system through the internal plumbing/ opening the manhole in a compound or premises. Impact of extremely high loading may hinder and/or cause bacteria to die and this may lead to a breakdown in the treatment process.

Most STPs are not designed to treat oil and grease. Indah Water typically removes excess oil and grease from treatment processes. As a result, any illegal discharges like oil, fats and grease (mainly from restaurants/ small industries/ food courts/ hypermarkets) further exposes all our STPs to risk of non-compliance. Indah Water is oftentimes penalised for non-compliance due to the irresponsible behaviour of third parties. Stringent enforcement on illegal discharge at source must be taken to ensure protection of water resources and the environment.

Our Risk Management and Challenges



Before - Bandar Tun Razak Aerated Lagoons



After - Bandar Tun Razak Mechanised STP

Risk Mitigation

Risk mitigation involves high capital and operational costs. Our revenue collected is not adequate to cover current operational cost. Risk reduction cost to Indah Water in addressing the above issues are currently beyond our financial means and capability. Other proposed mitigation measures are discussed in the following section.

Increase No. of Manned STP

Manned Sewage Treatment Plant (STP) simply means the plants always has operator to monitor the plant's performance at all times. Sewage plants need to be attended to daily so that any malfunction of the treatment processes and equipment can be attended to immediately. Manning all plants on a full time basis would triple our operational cost. This is uneconomical and the long term solution, therefore, is to rationalise small plants into a regional plant.

Refurbished and Upgrade Old STPs

More than 50% of public STPs were built from 1960's to 1980's and early 1990's during the days of local authorities and were based on inadequate design standards which are unable to meet current EQA standards. These plants need to be refurbished and upgraded to meet further future stringent requirement of EQA.

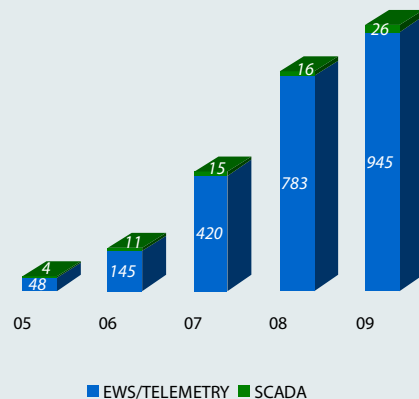
Increase Sampling Frequency

Due to budget constraints, effluent sampling frequency is based on type and capacity of the STP. Increasing sampling frequency and monitoring would definitely reduce the risk of non-compliance as we can then take necessary actions to suit the incoming loading of wastewater.

Early Warning System

SCADA systems and telemetry systems serve to inform/ trigger key operators of any disruption occurring especially with regard to power supply or tripped equipment due to lightning or vandalism. However, the installation of these advanced monitoring systems requires huge capital and operational costs.

No of EWS/Telemetry & SCADA System installed in Treatment Plant



FROM RIGHT, CLOCKWISE

- 1. Eateries**
To be desludged on a scheduled basis or connected to catchment systems
- 2. Sullage**
To be enforced for proper treatment of their respective discharge (>1 million properties)
- 3. Septic Tank**
Sullage connection to be enforced for connection to sewerage system (approximately 50% of properties)



As part of mitigation measures to handle the above risks, Indah Water has taken the initiative to install early warning systems within our STPs. To date, we have 26 SCADA systems, and 945 of our STPs nationwide are complete with early warning system/telemetry.

Eye Programme

It is important for Indah Water to know that our STPs are secure, operational and in compliance with gazetted regulatory standards. Some of our STPs are highly exposed to risk of becoming non-compliant due to the loss major equipment caused by theft. As such, we have established eye watch security programs for selected Indah Water customers located within these areas.

This program is part of our initiative to reduce the risk of theft and vandalism to our STPs. Indah Water established the 'eye program' since year 2003, whereby selected suitable customers were appointed to become Indah Water's 'eye' watch security partner/ officer. The customer alerts our office of any suspicious or unusual events occurring in the STP in their respective area. As a reward for their assistance, we provide them free sewerage service. To date, we have more than 140 selected customers enrolled in this program.

Increase Enforcement

Issues related to oil and grease should be handled at its sources by the relevant agencies and enforcement to utilise oil and grease traps or interceptors should be initiated by the local authorities. Regulation and enforcement to control prohibited discharge particularly oil and grease at source and to prosecute the polluter would take some time to be realised but this is beyond Indah Water's control.

Our Risk Management and Challenges

Uneconomic Sewerage Tariff Rate

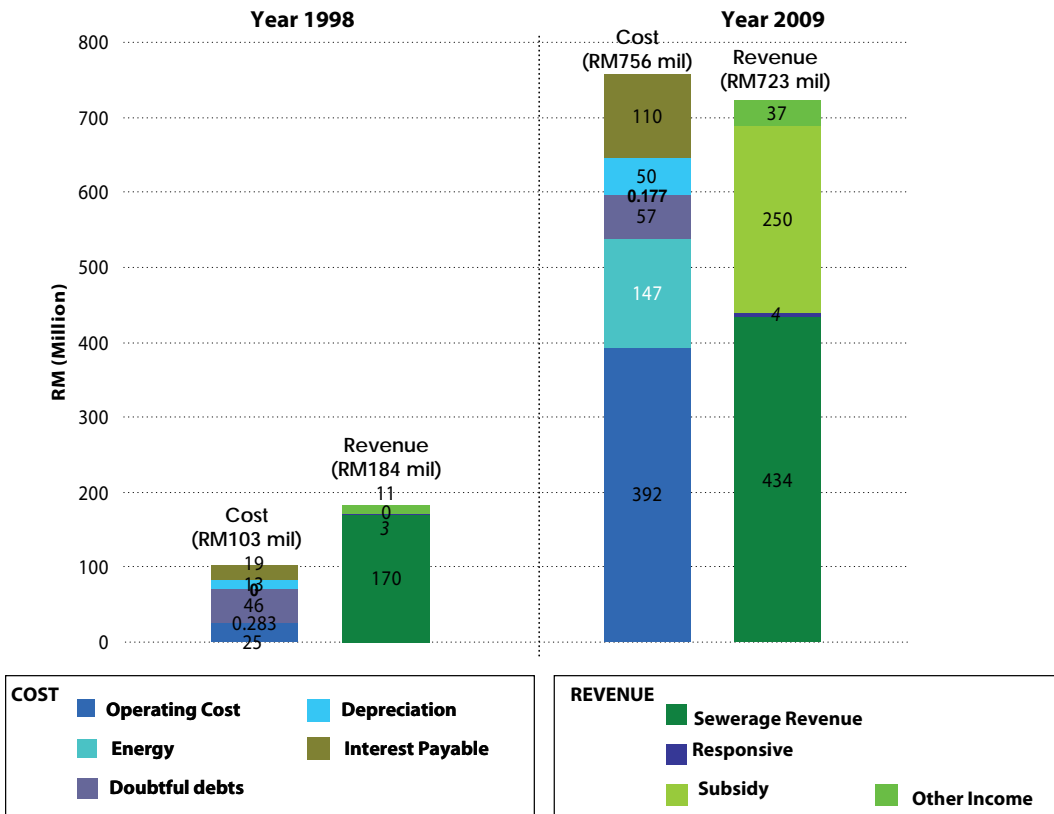
Since 1997, Indah Water's sewerage tariff rate has been reduced four times. Conversely, its operating cost has increased at much higher rate than its revenue. While the sewerage revenue has increased by 155% from RM170 million in 1998 to RM434 million in 2009, the Company's total operating cost has escalated by 634% from RM103 million to RM756 million for the same period.

The increase in operating cost is primarily attributed to the increase in number of sewage treatment plants and length of sewer lines taken over by Indah Water, increase in electricity

tariff rate which increases our cost of managing our mechanised plants, inflation, cost of instituting measures to meet effluent compliance, costs related to equipment purchased in health and safety compliance and in carrying out activities relating to preventive maintenance.

Unfortunately, the low increase in revenue is due to the fact that our tariff rates have not been adjusted to match the increase in operating the business.

Revenue and Cost Structure



Our Health and Safety Commitment

Working in a dirty environment is part of the job. However, we place priority on the safety and health of our workforce. As part of our initiative to create health and safety awareness in the sewerage sector, Indah Water participated in MBAM Annual Safety Conference in 2009, which was held at the Cititel – Mid Valley City, Kuala Lumpur on 15th July 2009.



Our Health and Safety Commitment

“ We will endeavour to see that our activities, services and products do not harm our employees, customers and members of the public who may be affected by our undertakings”.

Suhaimi Kamaralzaman
Former Director
Indah Water Konsortium Sdn Bhd



Health and Safety Management

Sewerage works, due to nature of the industry, is more illness and accident prone compared to any other utility services. Our workers are often exposed to hazards e.g. infectious diseases, backache, physical injuries, confined spaces which are oxygen-deficient and exposure to toxic and explosive gases, electrical shock, noise, fumes, drowning, trench collapses and falling from height.

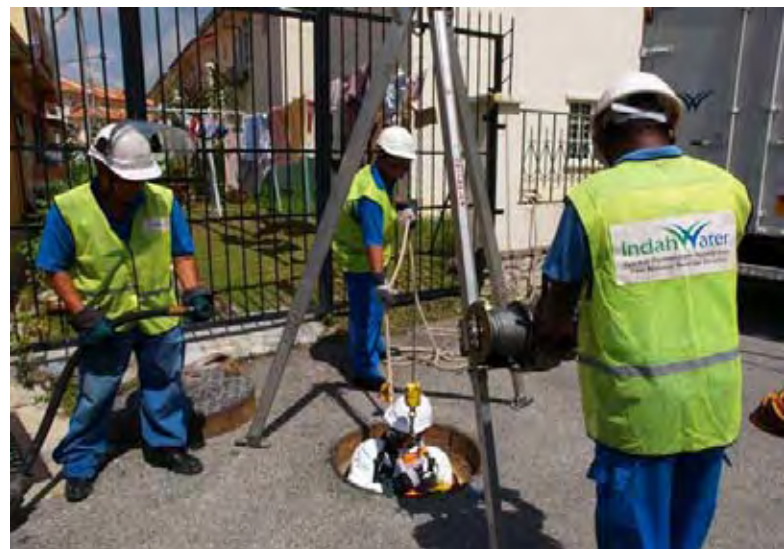
Self-regulation by Indah Water in carrying out safety and health management components has shown improvement in the safety records. We carry out annual Health and Safety (H&S) Audits to ensure compliance and implementation of established H&S management components.

The implementation of a systematic approach towards Health & Safety has brought about many benefits, such as reduction in accident rates, improvement of site conditions and an increase in safety awareness of workers within Indah Water and the public at large.

Apart from this, our management insists on Certificate of Competency and Working Permits to ensure our workers are competent and properly trained. Without a valid certificate, our company do not allow work to proceed. Plan for safety has been built into our work procedure some of which includes;

- Checking security and safety status;
- Control of entry via **SEWER ENTRY PERMIT, PERMIT TO WORK** (for other confine space) and procedure on **ENTRY INTO GAS CHECK AREAS**, checklists, depot checklists, completion checklists, routine checks, etc;
- Accident and Emergency Procedures;
- Procedures of entry into manholes, chambers or wells of different depth from vertical lifts;
- Procedures of entry into manholes, wells or sewers, where work carried out away from bottom access shaft;
- Procedures of forced ventilation of confined spaces;
- Procedures of maintenance work involving possible release of gases; and
- Task specific guidelines, etc.

UTAMAKAN KESELAMATAN SAFETY FIRST



Entry to confine space (e.g manhole entry) must be done with permit and by qualified trained skills staff

Our Safety Policy

"Indah Water is committed to safeguarding and improving its health and safety performance by conducting its business activities in an organised and responsible manner by adopting a certified health and safety management system. We will endeavour to see that our activities, services and products do not harm employees, customers and members of the public who may be affected by our activities. We believe it is necessary to adopt sound management practices of which the integration of health and safety principles are of the highest priority"

Corporate Responsibilities

In undertaking its business activities it is the expressed policy of Indah Water to :

- Provide and maintain facilities, plant, equipment and systems so as to ensure we operate a safe place of work with adequate welfare and first aid facilities;
- Establish effective communications that enable employees and their representatives to participate in developing and promoting effective measures to ensure the highest standards of health and safety at work are maintained;
- Undertake to train and educate employees of the risks to which they may be exposed;
- To make available to each and every employee appropriate safety and protective equipment;
- To prepare and review annual health and safety plans;
- To comply with all relevant occupational safety and health national laws and regulations as a minimum, promoting performance standards that reflect best international practice;
- To develop, maintain and review emergency procedures in accordance with the requirement of law and the needs of relevant external agencies and local communities;
- To ensure health and safety will be a significant factor in the selection process of external suppliers or contractors; and
- To continually improve the performance of the health and safety management system.

Health and Safety Awareness and Programmes

A safe working culture is critical in Indah Water. We cannot afford any mistakes as the risks are high and can be life threatening. The Company's commitment towards safety is endorsed in our health and safety policy. H&S programmes conducted in Indah Water include the following:

1. Medical screening conducted for sewerage workers to monitor the status of their health and to prevent work related illness. This enables us to identify potential health hazards arising from exposure to sewerage.
2. A survey of the prevalence of Hepatitis A & E which was conducted by UPM in January 2008. The objective of this cross-sectional study was to determine the presence of HAV and HEV in sewage at four different geographic

locations and to determine prevalence of the HAV and HEV among the field and non-field workers in four different geographical locations using seroprevalence technique (total IgM an IgG).

3. Indah Water embarked on an "Ergonomic Risk Assessment Project" from January 2008 until April 2009 covering all manual handling routines and non-routine activities. The purpose of project was to ensure a high level of productivity and competitiveness amongst workers in whilst minimising health and safety problems in order to maximise the company's bottom line. An ergonomics assessment was performed on 5 different tasks that were selected based on their potential to cause musculoskeletal injuries to workers after a screening process. This assessment was carried out by Dr. Jalaluddin, ErgoWorks Training Centre.
4. Noise assessment was carried out for desludging and jetting vehicles in relation to concerns raised by employees in H&S Committee. Based on the area monitoring assessment, the noise level to which workers are exposed during jetting and desludging is below the permissible exposure limit and therefore, the usage of personal hearing protection devices was not a prerequisite.
5. Noise survey was conducted to determine the prevalence of noise induced hearing loss among the customer service representatives, particularly those exposed to using headsets provided by the company in April 2008. The survey done was to determine the necessity of carrying out audiometric testing to monitor any hearing loss during the period of employment.



Our Health and Safety Commitment

6. A Chemical Health Risk Assessment (CHRA) was conducted at Sg. Besi Regional STP and Central Laboratory at Bukit Jalil, Kuala Lumpur between April 10, 2008 and August 8, 2008 and Batu Ferringhi and Bayan Baru STP, Penang in December 2009. The objective of this assessment is to facilitate decision making on the adequacy of existing control measures such as the induction and training of employees, provision of personal protective equipment, safe work procedures on chemical handling, monitoring and health surveillance activities. The assessment is based on the CHRA Guidelines recommended by the Department of Occupational Safety and Health Malaysia.
- Health and Safety Awareness
 - Health and Safety Legislation
 - Indah Water H&S Policy, Manual and Standards
 - Emergency First Aid and Certification Program
 - Working in Confined Space for Operators and Superintendents
 - Authorised Gas Tester
 - H&S Committee/ Workshop
 - H&S Induction for Construction Workers
 - Indah Water Accidents and Dangerous Occurrence Reporting Guide
 - Workplace Inspection
 - Accident Investigation
 - Office Health and Safety

Health and Safety Embedded in Training

Health and Safety (H&S) in Indah Water is a broad topic, which a broad spectrum of activities which include raising Health & Safety awareness, H&S requirements at work and/or competency, legislation, identifying work related risks, preventive maintenance and guidance on accidents reporting. We have 24 health and safety training courses to ensure that Health & Safety awareness is embedded in our working culture. The training conducted is based on need and the modules are designed to suit all levels of workforce or stakeholders; i.e. professionals and non-professionals, including our contractors and their workers. Safety and health skills training available include the following;

We provide health and safety (H&S) training related to job requirements internally and we send our staff to additional specific H&S courses which are conducted externally. As part of our initiative to raise health and safety awareness in the sewerage sector, Indah Water had also participated in Master Builders Association Malaysia (MBAM) Annual Safety Conference in 2009, which was held at the Cititel – Mid Valley City, Kuala Lumpur on 15th July 2009. There were more than 50 participants at this conference. Our safety officer, Mr Ganasan, presented a paper on 'Sewage Pipe/ Manhole Safety'. The paper outlined common safety and health hazards in a sewerage treatment facility, confined spaces and excavation work accidents, safety and health challenges and development of safety work culture in sewerage industry.





Adequate safety & warning signages erected at Indah Water Treatment Plant



Traffic safety cones provided during desludging services



Indah Water staff being equipped with adequate personal protective equipment (PPE)

Safety Record and Performance

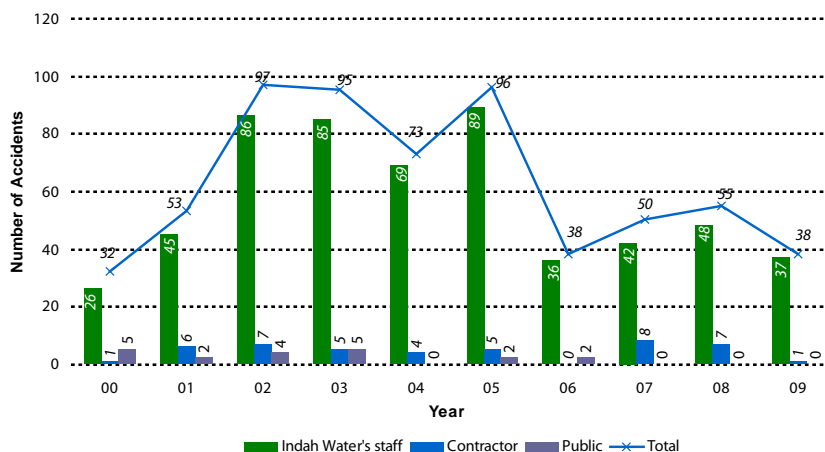
We conduct safety inspections covering everything from minor accidents with no injury to serious injuries including death and near miss accidents. We have compiled nationwide data on safety performance for all our 18 unit offices and headquarters which is illustrated in the following chart. The chart displays our annual accident rate inclusive of accidents involving our own employees, contractors and the public. Over the past 2 years, Indah Water has improved i.e. there has been a reduction in our accident rate. The number of accidents has dropped from 48 in 2008, to 37 in 2009 i.e. a 23% reduction in accidents involving Indah Water employees. The number of accidents involving our contractors has reduced significantly from 7 in 2008 to 1 in 2009 a 86% reduction. Most of the reported accidents were categorised as minor accidents. We hope to further improve our health and safety awareness and reduce our accident rate in the future.

Keeping Safety Visible

Indah Water places a high priority on Safety Awareness and keeping our safety initiatives visible to ensure public safety and to ensure our works are carried out safely, efficiently and to protect our staff and our assets.

Sewage treatment plants and oxidation ponds are not swimming pool or fishing ponds and are dangerous places for intruders, especially children. Trespassing into our treatment facilities is strictly prohibited and Indah Water is not responsible for any accidents which include the risk of falling, slipping into our ponds, drowning, other water related injuries or at worst, death. All our facilities are equipped with signages which are prominently displayed prohibiting entry into our plants.

Record and Number of Accident from Year 2000-2009



Achievement and Awards



Customer Gratitude/ External Acknowledgement

Sewerage related problems typically include odour, noise, sewer blockages or collapse, etc. These could be very stressful to unfortunate customers. We try our best within available means to provide the services and assist the public in any way we can to address any wastewater related issues.

Our sewerage services to the public is of utmost importance to us. Only customers who have experienced sewerage related problems tend to appreciate our services. We do not expect much, payment for our services and a smile on our customers' faces are our reward. We receive many thank you letters from our customers.

We also receive gratitude certificates or acknowledgements for participating in sponsorships of conference, exhibitions, workshops, etc. as follows;

1. Participation in Indonesia Sanitation Exhibition, 2007.
2. Participation in 'Program Peningkatan Kualiti Air Sungai di Negeri Sembilan' Year 2007.
3. Participation and co-sponsor in World Water Day together with British Council and NST in 2007.
4. Presented a paper on Malaysian sewerage infrastructure scenario at OIC Infrastructure Forum on Enhancing Construction Human Capital Amongst OIC Members Countries on 29th to 31st October 2009 at Berjaya Time Square, Kuala Lumpur.



Awards

Indah Water was awarded the “Top Ten Customer Award in 2007 - 2008 under Negeri Sembilan Skills Development Centre (NSDCC). This Award endorses our efforts in providing support to NSDCC development programmes.

This year, we participated in ACCA Malaysia Sustainability Reporting Awards (MaSRA) 2009. It is our first attempt to participate in global trends and best practices in report writing. Out of 55 reports submitted to the organiser, 20 reports have been short-listed, including our Corporate Sustainability Report, 2007.

Indah Water participated in Quality and Open Day for Daerah Pontian, Johor on 19-21 October 2009. There were approximately 24 booths from government agencies and private sector companies who participated in the event. Our booth was visited by more than 1,000 people and managed to bring home another award for ‘Best Display of the Day’.

Going Forward

Healthy revenue and profit margins are crucial to any company. It is essential to determine the factors critical to our company's success, measure these and put into place a system for continuous performance improvement. Indah Water is continuously planning and updating our Business plans and relevant Key Performance Indicators (KPIs) to ensure our goals are achievable.

Indah Water believes in monitoring the implementation and effectiveness of our organisation's strategies. We conduct gap analyses between actual and targeted performance to determine organisational effectiveness and operational efficiency. We are constantly striving to achieve our Mission and Vision.

Challenges and Policy Direction

Faced with stiff competition, increasing demanding from our customers, high labour costs and slowing economic growth, Indah Water and other service industries around the world are trying to boost their productivity. Improving Indah Water's performance is difficult since the customers and our activities vary too widely but as a young, evolving utility company, we try our best to introduce new, improved processes to how we do our jobs and how we service our customers. It is huge challenge for Indah Water to bring a very wide range of staff who vary in experience, skills, and motivation they bring to the job i.e. from our operators who have a minimal education at secondary level to our highly skilled and professional engineers and managerial staff, to perform at higher than existing levels when even getting paid for the job done at our current tariff does not even able to cover the Company's overall expenditure cost.

The Company's policy direction is to work towards providing cost effective and efficient services and importantly, to improve the quality of life in Malaysia by preserving the environment, protecting public health and the water resources. Indah Water is confident we will find the appropriate solution to the issues we are currently faced with and will continuously strive to improve our performance in order to retain customers loyalty.

As we embark towards 2010, our management is set to pursue various opportunities to steer the company towards long term sustainability in this increasingly challenging economic environment. Our management believes that this is a good time for us to evaluate our strengths, weaknesses, opportunities and threats. Our management believes that 'when the going gets

tough the tough must get going' and we, at Indah Water, strive to achieve the company's vision and make them a reality for all.

Our management are keen to pursue business development opportunities within sewerage services. It is our management vision that in order to move Indah Water towards achieving higher value, there is a necessity to introduce new economic activities so as to be self sustaining in the long term and to become less dependent on Government financial support. We are pursuing with the relevant authorities to enable us to venture into new businesses related to the Green Technology in the 3R of reuse of sludge, recycle effluent and reduce energy.

Having achieved steady growth and progress over the last 15 years, Indah Water is determined to take the environmental challenges in hand. As an industry leader in the sewerage sector, we have to gear ourselves for success tomorrow as well as today, and to think as well as act not just for the short term but also for long term sustainability. The management is committed to implementing reforms to improve our existing business operations. We will continue to focus on operational efficiency and look forward to the potential business opportunities as a new source of revenue stream to finance the escalating costs of treating sludge, operating and maintaining 13,772 kilometres of public sewer networks, over 5,428 public sewage treatment plants as well as over 200 new plants yearly. With a new top management, restructuring and clear vision to spearhead the Company, we believe our customers will see a cleaner environment and be willing to be charged for our services based on an affordable tariff structure.

Our management is determined to make Indah Water more competitive and to turn the sewerage services into a viable business. This will pave the way towards the Government's aim of holistic water and sewerage management in the long term. Indah Water is aware of the challenges we will be encountering in implementing initiatives to generate more revenue and to be less dependent on Government financial support. Against the backdrop of the business challenges and opportunities, our management clearly see an imperative in taking decisive action in order to sustain our business.

Our management will take the challenge over the next three years, to embed sustainability into every aspect of the company's business strategy and decision-making in preserving the environment, protecting public health and the water

resources, which is also in line with the Federal Government's initiative to integrate water and sewerage services in a holistic manner. Building sustainability into our corporate culture creates longer-term strategic advantage. Our management's beliefs that sustainable businesses can reduce costs, drive innovation, minimise risks and motivate employees to increase productivity. It is vital to promote customers' quality of life and increase customer loyalty.

Going forward, we will put in place mechanisms to ensure the long term sustenance of our existing and potential businesses. We will embrace a global outlook to seek growth business opportunities. Indah Water has set an ambitious agenda and we will need all parties to work together to support our initiatives.

As we progress, we will keep our focus on doing what is right. We will continue to provide more cost effective and efficient services as well as be more customer focused. We will continue to educate more people in the Malaysian community to work towards a cleaner and healthier environment through our ongoing communication programs and activities.

Environmental Quality (Sewage) Regulation, 2009

The Department of Environment (DOE) under the Ministry of Natural Resources and Environment Malaysia has recently stepped up in enforcement of new regulations which came into force on 10 December 2009. The new Environmental Quality (Industrial Effluents) Regulations, 2009, and Environmental Quality (Sewage) Regulations, 2009 (or EQSR), will replace the previous Environmental Quality (Sewage and Industrial Effluents) Regulations, 1979. Under the regulations, entities are prohibited from disposing of industrial effluent or sewage into soil, inland waters or Malaysian waters.

Under the new EQSR, there are a total 27 Regulations and 7 Schedules. The new EQSR includes amongst others: Notification for new source of sewage discharge (Regulation 4), Provision for proper operation of STP (Regulation 5), Competent person (Regulation 6), Acceptable condition of sewage discharge (Regulation 7), Contravention License (Regulation 8), Method of analysis and sampling of sewage (Regulation 9), Monitoring of sewage (Regulation 10), etc. The First Schedule in relation to Regulation 4 is a notification form for sources of sewage discharge, the Second Schedule is in relation to Regulation 7 which is the new acceptable sewage discharge standards, whilst the Third Schedule is a list of Standard A river water catchment under Regulation 7.

The new sewage discharge standards specify more stringent effluent standards particularly upstream of water intake point and release into stagnant water. The new standard has incorporated the Ammoniacal Nitrogen value (NH₃-N) and phosphorous value for enclosed water body discharge. It also takes into account plant capability to treat sewage based on its intended design by breaking the compliance criteria into types of treatment systems and availability of sewage treatment design guidelines.

Budget Allocation for 2010

In 2010, Indah Water allocated RM634.41 million towards environmental and sustainability management activities. Of this, RM494.21 million is allocated for overall sewerage management which includes operational planning, treatment, desludging, network, laboratories and technical services.

"We need to get beyond putting the environment as the thing we do after making profits. Instead, we need to do the profitable thing as responsibly as possible."



Zahrin Zakaria
Assistant General Manager -
Finance & Administration Department

Going Forward

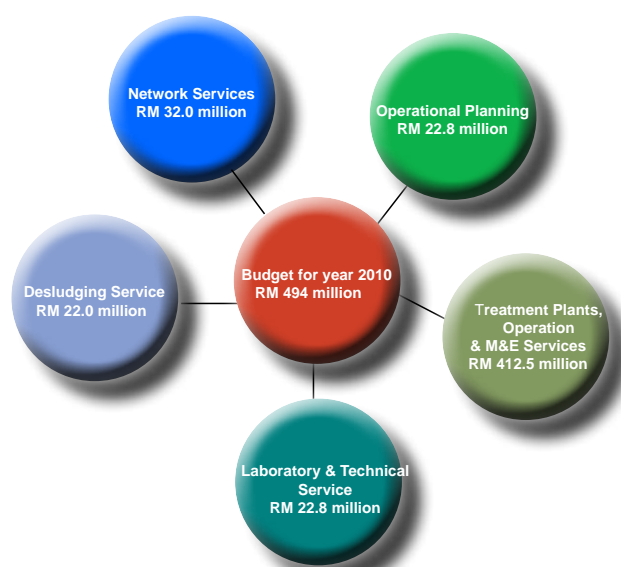
Indah Water Activities	Budget Allocation Year 2010 (RM Million)
1. Operating Expenditure	
- Operation & Maintenance	494.21
- Planning & Engineering (R&D, Design, Certification etc.)	19.75
- Project Management (Capital Works & Refurbishment)	7.72
- Health & Safety	1.33
- Corporate Social Responsibilities (CSR)	5.88
2. Investment in Sewerage Related Assets (including vehicles)	105.52
Total (RM Million)	634.41

Operation and Maintenance

- To improve 50 plant performances through pond desilting and sludge handling.
- To acquire process equipments such as portable MLSS, DO meters, pH meters, sludge judge and moisture analyser to improve process control of the plants.
- To construct a new laboratory to handle the increase in number of samples to be analysed to meet regular requirements as well as to improve treatment plant performance.
- To progressively replace manned security with electronic security, which is more cost effective.

Communication and Customer Services

- To improve customer relationship by improving customer data analysis, and promoting the company's achievement and activities using various channels of communication to improve the collection rate.
- To launch a programme to educate non-paying domestic customers by sending brochures to each premises.
- To serve letters of demand to domestic customers under the RM8 a month sewerage charge category.
- To issue reminders and notices to 7,000 commercial and industrial customers and 15,000 domestic customers.



Planning Certification and Advisory

- To improve and enhance asset management & GIS system, land database system, certification monitoring system and water quality modelling analysis.
- To initiate road shows in all states for certifying agency services.
- To continue with Development of Quality Systems for the company.
- To conduct Research & Development studies for improved performance, outlets for biosolids disposal/commercialisation, leveraging on green technology.
- To organise ECO-Asia capacity building programs on septage management in Davao, Philippines
- To enhance facilities for improved delivery of training.
- To increase stakeholder participation in capacity building programs.

3 Year Business Plan (2010 – 2012)

A 3 year Business Plan (2010 – 2012) has been drawn up with goals and targets which are specifically formulated to align with our strategic objectives that will provide the thrust to ensure an efficient and effective delivery of the sewerage services as well as to meet the long term aspiration to integrate the water and sewerage industries. Targets for sewerage services focus on improving service levels such as response to sewerage overflows within 12 hours, public blockages and sewer collapse within 24 hours etc. The targets for the environmental improvements will primarily focus on improving effluent discharge standards. Other targets include providing assistance in the development of volumetric “Green” tariff, benchmarking, achieving customer satisfaction index of 50 by 2012, providing adequate sludge handling facilities etc.

List of Abbreviations

ACCA	Association of Chartered Certified Accountants
BEIM	Business Ethics Institute of Malaysia
BOD	Biochemical Oxygen Demand
CAPEX	Capital Expenditure
CEO	Chief Executive Officer
CH ₄	Methane
CHRA	Chemical Health Risks Assessment
CIP	Continuous Improvement Programme
CMF-S	Continuous Micro Filtration - Submerged
CO ₂	Carbon Dioxide
COD	Chemical Oxygen Demand
CSR	Corporate Social Responsibility
CST	Communal Septic Tank
CSTF	Centralised Sludge Treatment Facilities
CV	Calorific Value
DBKL	Dewan Bandaraya Kuala Lumpur
DENR	Department of Environment and Natural Resources
DEWATS	Decentralized Wastewater Treatment System
DID	Department of Irrigation and Drainage
DO	Dissolved Oxygen
DOE	Department of Environment
DPWH	Department of Public Works and Highways
ECO-Asia	Environmental Cooperation-Asia
EQA	Environmental Quality Act, 1974
EQSR	Environmental Quality (Sewage) Regulations, 2009
ESQ	Emotional Spiritual Quotient
EWS	Early Warning System
GEMS	Graduate Employability Management Schemes
GIS	Geographic Information System
GPS	Global Positioning System

HAV	Hepatitis A
HAZOP	Hazard and Operability
HEV	Hepatitis E
HIV	Human Immunodeficiency Virus
H&S	Health and Safety
H1N1	Pandemic Influenza A
IAD	Internal Audit Department
IEM	Institute of Engineers Malaysia
ISO	International Organization for Standardisation
IST	Individual Septic Tank
IT	Information Technology
IWK	Indah Water Konsortium
JBIC	Japan Bank for International Cooperation
JKKP	Jabatan Keselamatan dan Kesihatan Pekerjaan
K	Potassium
KeTTHA	Kementerian Tenaga, Teknologi Hijau dan Air, Malaysia
KLCC	Kuala Lumpur Convention Centre
KPI	Key Performance Indicator
KPPIWK	Kesatuan Pekerja-pekerja Indah Water Konsortium
KUITTHO	Kolej Universiti Teknologi Tun Hussein Onn
LA 21	Local Agenda 21
LINAW	Local Initiative for Affordable Wastewater Treatment
LoS	Level of Service
MARDI	Malaysian Agricultural Research and Development Institute
MASM	Minggu Alam Sekitar Malaysia
MaSRA	Malaysia Sustainability Reporting Awards
MBAM	Master Builders Association Malaysia
MBMB	Majlis Bandaraya Melaka Bersejarah
MDU	Mechanical Dewatering Unit
MLSS	Mixed Liquor Suspended Solids

List of Abbreviations

MOF	Ministry of Finance
MOU	Memorandum of Understanding
MRSM	Maktab Rendah Sains MARA
MSIG	Malaysian Sewerage Industry Guidelines
MWA	Malaysian Water Association
N	Nitrogen
N ₂	Nitrogen gas
NGO	Non-governmental Organisation
NH ₃ -N	Ammoniacal Nitrogen
NIP	National Integrity Plan
NPS	Network Pumping Station
NSDCC	Negeri Sembilan Skills Development Centre
OMD	Operation and Maintenance Department
P	Phosphorus
PAAB	Pengurusan Aset Air Berhad
PDAM Tirtanadi	Perusahaan Daerah Air Minum Tirtanadi
PDCA	Plan Do Check Act
PE	Population Equivalent
PLKN	Program Latihan Khidmat Negara
PPE	Personal Protective Equipment
PWTC	Putra World Trade Centre
QC	Quality Control
RO	Reverse Osmosis
RRIM	Rubber Research Institute of Malaysia
R&D	Research and Development
SAMM	Skim Akreditasi Makmal Malaysia
SCADA	Supervisory Control and Data Acquisition
SCV	Sewer Cleaning Vehicle
SOP	Standard Operating Procedures
SPAN	Suruhanjaya Perkhidmatan Air Negara

SS	Suspended Solid
SSD	Department of Sewerage Services
STP	Sewage Treatment Plant
TTC	Technical Training Centre
UIAM	International Islamic University Malaysia
UiTM	Universiti Teknologi Mara
UKM	Universiti Kebangsaan Malaysia
UMP	Universiti Malaysia Pahang
UO	Unit Office
UPM	Universiti Putra Malaysia
USAID	United States Agency for International Development
UTM	Universiti Teknologi Malaysia
UNCED	United Nation Conference on Environment and Development
UNDP	United Nations Development Programme
WATSAN	Water and Sanitation
WSIA	Water Services Industry Act, 2006

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LA7	Rates of injury, occupational diseases, lost days and absenteeism	79
LA8	Education, training, counselling, prevention, and risk-control programmes regarding serious diseases	19, 76-78
LA9	(Add.) Health and safety topics covered informal agreements with trade unions	18, 77-78
LA10	Average hours of training per year per employee	20-21
LA11	(Add.) Programmes for skills management and lifelong learning	20-21, 78
LA12	(Add.) Percentage of employees receiving regular performance and career development reviews	18, 22
LA13	Breakdown of employees according to gender, age group, minority group membership	18-19
LA14	Ratio of basic salary of men to women by employee category	18

Not Reported : LA5, LA6

SOCIAL INDICATORS: HUMAN RIGHTS

HR1	Significant investment agreements that include human rights clauses	20
HR3	(Add.) Total hours of employee training on policies and procedures concerning human rights	11, 19
HR4	Incidents of discrimination and action taken	19

GRI#	Index Listing	Page (s)
HR5	Operations indentified in which the right to exercise freedom of association and collective bargaining may be at a significant risk	20
HR6	Operations identified as having significant risk for incidents of child labour	19
HR8	(Add.) Percentage of security personnel trained in policies concerning human rights	11
<i>Not Reported :HR2,HR7,HR9</i>		
SOCIAL INDICATORS: SOCIETY		
SO1	Programmes that manage the impacts of operations on communities	53, 56-61
SO4	Action taken in response to incidents of corruption	19
SO5	Public policy positions and participation in public policy development and lobbying	56-57
<i>Not Reported : SO2,SO3,SO6,SO7,SO8</i>		
SOCIAL INDICATORS: PRODUCT RESPONSIBILITY		
PR2	(Add.) Total number of incidents of noncompliance with regulations concerning health and safety impacts of products and services	36-37
PR3	Type of product and service information required by procedures	30-31
PR4	(Add.) Total number of incidents of noncompliance with regulations concerning product and service information and labelling	39
PR5	(Add.) Practices related to customer satisfaction	28, 30-31
<i>Not Reported : PR1,PR6,PR7,PR8,PR9</i>		

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stamp

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Sustainability Report 2008-2009

The team involved in this report wishes to thank all the individuals throughout the organisation who contributed the information in this report. Our special thanks also to the core contributors whose input has been invaluable in the successful publication of this report

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